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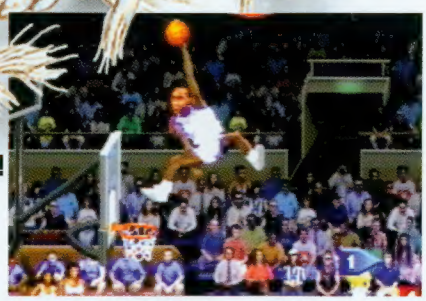

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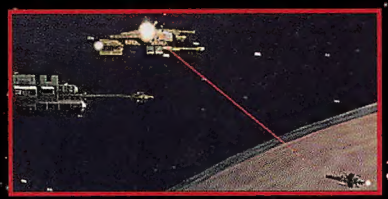

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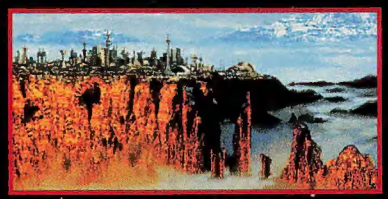

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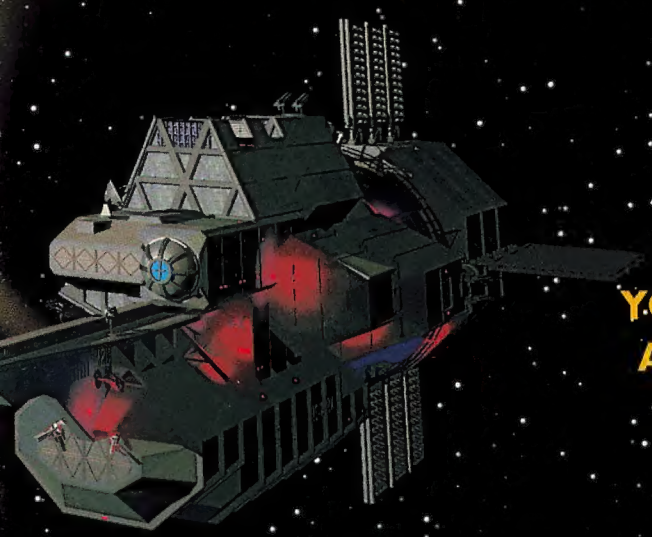

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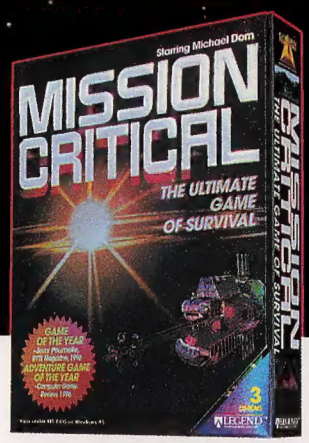

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Contents

What's Up!

6 Editor's Page

8 Letters

10 Game News

Who pays the price for Wing Commander IV's $10 million budget, UK reports from Bullfrog and Mindscape, and Warcraft II cheats.

14 Multimedia News

Living large with Gateway's Destination TV/PC, walking the Net with your Digital Pet, and Star Talk with *Connections*' James Burke.

18 Online News

Why online services are getting on the Web—a site that's music to your ears, and more.

22 Leader Board

The best-selling PC and Mac games and multimedia entertainment software.

24 The Ref

What's the story with glitzy games these days? Not much, says Steve Klett. Flashy graphics are nice, but so's a decent plot.

26 Multimaniac

Just another day in the multimedia life. Christine Grech takes a little time off with her PC and some essential weekend CD-ROMs.

86 Spotlight: Multimedia

We review Solution CD '96, a disc full of game tips; d-Time Mac for speedier CD-ROMs; and four enhanced CDs.

Are original game and movie ideas headed for extinction? Find out on page 32.

Air Warrior II will bring multiplayer flight-sim excitement to an online service or standalone computer near you.

IMAGE COURTESY OF KESMAI

Features

28 Air Warrior II Takes Off!

By Steve Klett

COVER STORY

Take to the skies on your own terms in Kesmai's high-flying sequel to the venerable Air Warrior. Shoot down your buddies via the World Wide Web or America Online, or fly solo in Interactive Magic's standalone retail version. Either way, this exclusive first look will help you earn your wings.

32 Troubled Times in Siliwood

By Peter Gardner

Doom, the movie; Waterworld, the computer game. Is this really a good idea? Developers and movie studios are teaming up, and the usual result is lame games and bad movies. Is there any hope for cross-media success?

36 Guided Tour: Civilization II

By Barry Brenesal

Finally, the sequel that strategy fans have been waiting for! With Civ II, MicroProse improves upon the classic with more options, better artificial intelligence, and dazzling Super VGA graphics. Our Guided Tour will show you around this carefully remodeled world.

Fast Pentiums face off on page 92.

Strategy is high on New World Computing's list in '96, page 12.

Sir Tech's Nemesis: A Wizardry Adventure boasts real-time combat, page 11.

Jackson Browne shows you what it takes to make a song, page 87.

PC GAMES®

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Sneak Peeks

40 Syndicate Wars

Game of the Month

42 Terra Nova: Strike Force Centauri

Action

44 Shockwave Assault
46 Road Warrior
48 Hyper 3-D Pinball
50 Command & Conquer: Covert Operations, X-Wing Collector's CD
52 Extreme Rise of the Triad, Master Levels of Doom II
54 Shellshock
56 Rise 2: Resurrection
58 ShadowWraith, Return of Arcade

Adventure

60 Kingdom o' Magic
62 CyberJudas
63 Foul Play: Mystery at Awkward Manor
64 Spycraft: The Great Game
66 Ripper

Brain Drain

68 Virtual Chess

Fly & Drive

70 Advanced Tactical Fighters
72 Wing Commander IV: The Price of Freedom

Role-Playing

74 Odyssey

Game Shorts

76 Connections, College Slam

Sports

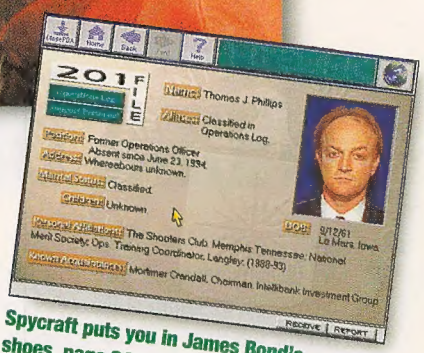
78 ESPN Extreme Games

Strategy

80 Warhammer
81 SpaceBucks
82 Gearheads
84 Chaos Overlords

Track down a ruthless killer in Ripper, page 66.

For the ultimate in modern air combat, check out Advanced Tactical Fighters, page 70.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Children: Unknown
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Known Associates: Mortimer Crandall, Chairman Intellibank Investment Group
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RECEIVE | REPORT

Spycraft puts you in James Bond's shoes, page 64.

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Tech Shop

92 **Fast Pentiums: Head to Head**

Speed, bells, and whistles. Which machine gives you more for your gaming money: AST's Advantage! 800 series or Packard Bell's Platinum Pro line? Plus: a couple of cool controllers.

94 **Memory Matters**

When it comes to RAM, it's an alphabet soup: DRAM, EDO, FPM, WRAM. What's it all mean, and what's best for your games?

96 **S.O.S.**

Do-it-yourself Web servers, bargain-hunting for modems, and making more room for your games in Windows 95.

Create your own Web server, page 96.

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PLAY the Demo on the disc

A classic gets even better in Civ II, page 36.

May 1996

Fredric Paul

Game Bashing

I recently returned from MILIA: The International Publishing and New Media Market, in the south of France. As moderator of MILIA's games panel, I was there to tell the international digerati about computer games. Most of them were there to show off, distribute, and talk about the latest multimedia and online products.

This was a world-class junket. With top execs gathered from new media companies around the world, the conversation sparkled—and so did the champagne. But, somehow, the products didn't.

Exuding a digital version of European intellectual snobbery, many of the almost 9,000 attendees seemed to snub games in favor of pretentious but essentially unmarketable multimedia titles. There seemed to be an attitude that middle-brow multimedia titles will save the world, whether or not the world wants to be saved. Many of the discs on display, from France's The Challenge of the Universe and its interviews with world-class scientists to Germany's Rain of Ruin—The History of the Atomic Bomb, were fascinating on their own terms. But I can't imagine millions of computer users willing to shell out the multicolored equivalent of $50 to peruse ScruTiny in the Great Round, the arcane art title—from the U.S., no less—that snagged MILIA's best-of-show prize.

Computer games, on the other hand, were too often dismissed as mindlessly violent gorefests for unwashed adolescents. Based on their attitudes, it was unclear exactly how many of these very bright, very enthusiastic people had ever actually played computer games.

Overlooking entertainment is a big mistake on their part. Games, not multimedia titles, are where the action is. The hottest technology, the most innovative writing and design, and the most satisfying results all turn up in games, not niche-oriented multimedia titles better suited to stroking the developer's ego than to grabbing the attention of real-world consumers. Games like Terra Nova (our Game of the Month, page 42) and Wing Commander IV (page 72) make even the slickest multimedia productions look like Stone Age artifacts. And Air Warrior II on America Online (see cover story, page 28) is far more fun than most Web pages.

Plenty of European developers—especially in the United Kingdom and France—know this. Game companies ranging from Cryo Interactive (keep an eye out for the intense cinematics in Alien Trilogy) in Paris to Bullfrog (see our preview of Syndicate Wars on page 40, and advance looks at Creation and Gene Wars on page 11) outside London are making terrific products for gamers all over the world.

Back in the U.S., things aren't that much different. Games sell, multimedia generally doesn't. So the most money and the top talent go into games.

Hey, don't get me wrong—*PC Entertainment* loves multimedia. But we love games even more, and we know that games rule the market. So you can look forward to improved game coverage in upcoming issues. We'll be treating top games in more depth, adding extra game news, instituting a new tips-and-tactics section, and a lot more. We may not save the world, but at least we'll have a great time.

FP

Tell me what you think! Send e-mail to fpaul@iftw.com; fax me at 415-349-7482; or send snail mail to Editor, *PC Entertainment*, 951 Mariner's Island Blvd., Suite 700, San Mateo, CA 94404.

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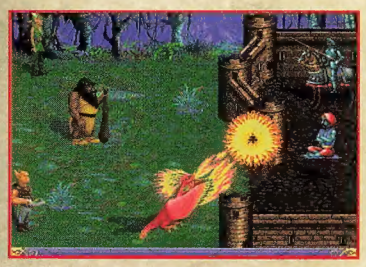

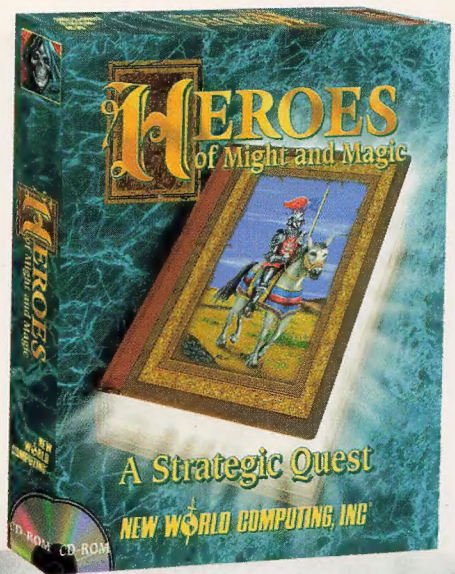

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Letters

Not So Different

It really upsets me how some people have created a distinction between PCs and Macs. In a recent letter, a reader complained that your name change discriminated against Mac users. That's not true. PC is merely an acronym for Personal Computer—not some mythical IBM standard. I think that the name change actually reflects more accurately what your magazine covers.

Also, where have all these cybernames come from to describe the Internet? It's not the Net, it's not Cyberspace, and it's definitely not the Infobahn, unless you are the proud owner of a broadband T3 connection.

Nick Bennett
Address Withheld

A Pandora's Box

I really enjoy your magazine because the reviews are so reliable and accurate. I have a couple of questions. First, I loved Under A Killing Moon. I was wondering when its sequel, Pandora Directive, is coming out. I read your preview of it quite a while ago and haven't heard much since. Secondly, I recently purchased The Beast Within. I think this is one of the best adventure games out yet; every aspect of it is perfect! When will you have a review of it? I am eager to see how it stands up against its competitors.

Max Batt
maxbatt@micron.net

Look for a review of Access Software's Pandora Directive fairly soon, most likely in our June issue. We reviewed Sierra On-Line's The Beast Within in March (page 58) and gave it four stars. —*Ed.*

Waiting for the Sequel

I have a game called Labyrinth Of Time by Electronic Arts. When I finished the game there was a message at the end to look out for Labyrinth II. I was wondering if you knew anything about the sequel. Has it been released?

Dirtch@cowland.com.

According to Electronic Arts, a second Labyrinth Of Time is not on the schedule at this time. However, the company did say it often considers sequels to older titles, even years after an original game's release. Considering that EA recently resurrected Flashback in the action/adventure Fade To Black, there's still hope. —*Ed.*

Good Game Play Needed

As an avid computer game player (and a fan of your magazine), I've noticed that most of today's computer games do not have a lasting impact on me. With all the full-motion video crammed onto a couple of CD-ROMs, the games look cool, but where's the game play? Surely you guys remember when game play was a big deal, as in The Legend of Zelda for the Super Nintendo or the Secret of Mana, which isn't so old.

With the superiority of today's computers over 32-bit gaming platforms, why don't game developers design some serious games for us game play–hungry fans? Why waste half a CD-ROM on full-motion video, which is only temporarily appealing, when developers can expand on the game's depth and complexity instead?

Sure, games should have some full-motion video, but not to the point where it overshadows the game play. If computer game developers continue down the current road, they are likely to notice a decline in their sales as game play–conscious people such as myself stop buying.

I hope *PC Entertainment* can tell me what the future holds concerning this serious gaming issue.

David Hong
Brooklyn, NY

For a full report on FMV computer games, check out "Is It a Movie, Or Is It a Game?" (September 1995, page 42). You're right that any special effect, from FMV to rendered 3-D art, must be used to enhance a game's story and game play, not just to add novelty value. In The Beast Within, for example, the video and live action give the game a new sense of realism compared to the original's animated sprites and backgrounds. —*Ed.*

CD Magazine

I read the Editor's Page in the March issue and thought it would be nice, since you are doing it for the *PC Entertainment* Web site, to have some of the magazine, if not all of it, on CD.

Stamatis Kantartzis
Stamatis_Kantartzis@myplace.blkcat.com

Thanks for the suggestion. Currently, we have no plans to put portions of the magazine on CD-ROM; our monthly CD will continue to focus on game demos. But check our Web site, **http://www.pcentertainment.com**, *for contents of the magazine, game demos, daily updates, and more.* —*Ed.*

My Dear Friends

I just wanted to thank Michael Lasky for his kind and generous words in his review of The 11th Hour. Soooo nice of him—most Guests only curse my helpful remarks (tsk, tsk). Eleven does not seem to be their lucky number.

And, yes, Vincent Price and I are comrades to be sure. I've invited him repeatedly to come by The House for dinner. Alas, he appears to have entered a more spiritual dimension. But, I do hope you'll all drop by for an extended visit—particularly Mr. Lasky. I'll put on an extra-special soup!

Henry Stauf
Rhstauf@aol.com

Got something you want to get off your chest? Do it! Write, fax, or e-mail us at: Letters to the Editor, c/o PC Entertainment, *951 Mariner's Island Blvd., Suite 700, San Mateo, CA 94404; fax: 415-349-7482; Internet address, e2Letters@iftw.com; and CompuServe: 73361,265.* ■

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D... Delirium.
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to enter the darkness forever!
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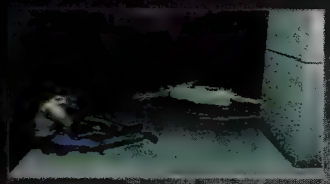

Enter the darkness if you dare.
Check out the demo on the disk in this magazine.
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TEEN T AGES 13+

PlayStation

SEGA SATURN

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NEWS

Game News

scouting REPORT

■ MicroProse is forging ahead with each of its popular brands. This summer, galactic conquest will continue in **Master of Orion II: Battle at Antares**. This Windows 95 adventure will feature new races, technology, combat, Super VGA graphics, and multiplayer capabilities. In the fall, also for Win 95, look for **X-COM: Apocalypse**, the third game in this hot series of strategic warfare against invading aliens. Flight-sim fans will want to check out **European Airwar**, based on 1942: Pacific Airwar, this summer. Finally, visit MicroProse's Web site at **www.microprose.com** for a free download of **Civilization II**'s multiplayer patch. (MicroProse; 800-879-7529)

■ Byron Priess Multimedia has several new games with big-name tie-ins. **The Arzach Adventure Game** features the character created by the graphic artist Moebius, while **Raymond Chandler's Philip Marlowe Private Eye Game**—co-published with Simon & Schuster Interactive—uses a moody, graphic-novel format as you play the famous 1930s sleuth. **Westworld 2000** is based on the Michael Crichton movie, while **Spider-Man: The Venom Factor** and **You Are Spider-Man** depict the comic-book superhero. (Byron Priess Multimedia; 800-945-3155; Win CD, Mac CD; $39.95)

■ Mindscape's **Megarace 2** is coming this summer. This Win 95 game continues the original racing-game-show theme and promises improved play. The

continued on page 11

The $10 Million Question

Origin's Wing Commander IV is the most expensive game ever.

Multiplayer capabilities in the new Renegade: Return to Jacob's Star are Strategic Simulations' secret weapon.

Wing Commander IV has just rocketed toward a store near you—and that's a good thing for Origin, because the Electronic Arts unit has sunk some $10 million into developing it. But even if Origin recovers its investment, what will be the impact of this game-Goliath on the rest of the industry? Can competing game makers match it dollar for dollar, or must they simply surrender?

Dave Luka, associate producer of SSI's Renegade space-sim series, admits defeat: "The goal isn't to beat [Wing Commander], because there's no way." Game developers, says Luka, have to add elements Origin "didn't or couldn't" to coexist in the market. Hence, Renegade: Return to Jacob's Star is the first space opera with multiplayer capabilities.

Even so, SSI almost held its Renegade sequel to avoid a simultaneous release with Wing IV. "We thought if we came out at the same time, we wouldn't be able to compete," says Luka.

Chris Roberts, executive producer of Wing Commander IV and the series creator, makes no excuses for spending big bucks on his games. He argues that because people associate stories with television and movies, story-oriented games must match TV production values to be believable. "Wing III did better than Wing I and II because of the production quality," claims Roberts.

Despite an investment of $8 million on filming and another $2 million on software design, the producer believes the game's popularity justifies the expense. According to Roberts, Wing Commander III topped 700,000 in sales for the PC and 3DO worldwide—on a $4 million budget. This time, he says, Origin needs to move a mere 400,000 units for the PC and PlayStation to recoup the $10 million investment. "It was more expensive to do, but less of a gamble. It's like *Batman* [sequels]."

As for its effect on the competition, Roberts acknowledges that Wing Commander IV will "force the industry to spend more money" and make "the price of entry higher." It will also accelerate the industry's trend toward consolidation, as smaller companies merge or get outpriced. In fact, Roberts says, Origin merged with Electronic Arts in part to do big-budget games such as Wing Commander IV.

"In the future," he adds, "the two main game [types] will be solo, high-production story games and huge, multiplayer online games like Command & Conquer." On the whole, Roberts feels Wing IV's impact will be positive: "I think it forces companies to be more professional."

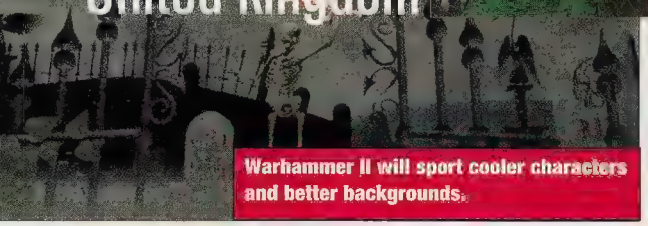
On the outside, SSI's Luka worries that "it's going to take companies out of the space-combat arena." Still, he gives Wing IV credit. "I feel Origin is almost helping everyone by doing these extravagant things," Luka says. "They are the trailblazers." —*Bill Meyer*

Wing Commander V

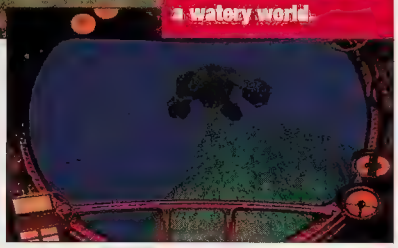
Origin says the next Wing Commander is already on the schedule. While Wing V's budget probably won't surpass $10 million, expect the next edition to be a joint production: game and feature film. In addition, executive producer Chris Roberts is working with popular fantasy writer Michael Moorcock on a new first-person action/adventure game called SilverHart. *–BM*

News from the United Kingdom

Crazy creatures rule the roost in Bullfrog's Gene Wars.



Warhammer II will sport cooler characters and better backgrounds.



This preliminary Creation screen shows a watery world.

PC Entertainment's recent travels in the UK, including visits to Mindscape and Bullfrog, uncovered several hot titles soon to arrive on American shores.

Warhammer Hits Back

This Christmas, Mindscape's action/strategy sequel **Warhammer II: Fantasy Battle** just might set a new standard for God games.

Roughly five years after the events of Warhammer, you must reassemble the original characters to prevent a "night of the restless dead." On the way, you'll find detailed missions and extended battles, including castle sieges. In addition, the course of the game will vary depending on the outcome of each chapter.

Some of your units will have a mind of their own. Glory-seeking knights may not sit by idly holding down the flanks, and dwarves and elves are not likely to put aside their historical differences and work together. Meanwhile, palace intrigue in the Emperor's court will affect who's willing to be your comrades in arms. As in Jagged Alliance, character morale and attitude will be as important as battle prowess. Enjoy it all with SGI-rendered 3-D graphics, support for multiplayer games, and smooth, speedy performance with Windows 3.1 and Windows 95.

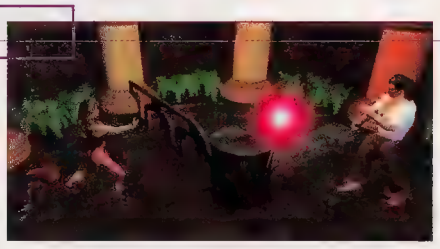
Bullfrog Keeps On Croaking

Featuring a '50s, B-movie feel, Bullfrog's strategy-based **Gene Wars** details the intervention of all-powerful ethereals in a bloody conflict between four galactic races. As the game starts, the immortals force the races to work together to clean up the mess they've made.

But old animosities die hard. The species secretly resort to using genetic putty to engineer nasty creatures to wipe each other out. As one of the four races, you must manage resources and develop various disciplines to cause maximum damage without antagonizing your new masters.

Creation, meanwhile, based on a version of the Magic Carpet engine, offers a mix of strategy and action and a moody, suspenseful story. Due late this year, it casts you as the lone keeper of a futuristic marine sanctuary invaded by a sentient fungus that drives the local dolphins berserk. Aboard your sub, you must fend off the interplanetary mafia harvesting the fungus for its psychedelic properties and restore the planet's ecological balance. *—Fredric Paul*

The Wait Is Over



Like Zork or Ultima, Sir-Tech's Wizardry fantasy series, begun in the late '70s for the Mac, is more than a line of games. It's a phenomenon. With seven Wizardry role-playing adventures already under its belt, Sir-Tech's plans for a new type of Wizardry quest are turning more than a few heads. Here's the scoop on the new Nemesis: A Wizardry Adventure, slated for a fall '96 release.

The upcoming game signals a completely new direction for the series. Unlike its role-playing predecessors, A Wizardry Adventure is predominantly a first-person adventure, and incorporates real-time combat for the first time. It also features exploration, character interaction, and puzzle solving.

The plot? You must locate seven magical talismans that have unleashed the evil Nithos Shadow on your land. In the distant past, these artifacts laid waste to a sect of inquisitive mages. Now, for unknown reasons, they are targeting you. Banish this threat forever, discover its link to the mysterious sorcerers, and learn its connection to yourself.

Sir-Tech hopes Nemesis' modern mix will encourage a new crew of adventurers to join the Wizardry ranks before a more traditional Wizardry VIII hits the streets next year. (Sir-Tech; 800-447-1230) *–Bill Meyer*

Platform: DOS CD
Release Date: September

Scouting Report

sequel also gives slimy host Lance a comely assistant, and adds better-looking tracks, 3-D rendered vehicles, and new weapons. (Mindscape; 800-234-3088)

- For an offbeat but visually impressive adventure game, check out Interplay and Gremlin Interactive's **Normality**, shipping in August. Amid a 3-D, 360-degree world and slick 3-D segues, players must liberate society from the oppressive grip of everyday life. (Interplay; 800-468-3775; DOS CD, Win CD; $49.95)
- Accolade's promising new game of planetary conquest, **Deadlock**, will ship this June. In a hotly disputed region of the galaxy, multiple cultures clash for the right to colonize one planet. To avoid war, all races are invited to settle, by building five city centers; winner takes all. Play one of several races and use an intriguing mix of technology, industry, and military might to take over. (Accolade; 800-245-7744; Win CD, Win 95 CD; $59.95)
- Cyberdreams has three unique titles scheduled for this year. In September, travel back to 1940s Los Angeles in the avant-garde mystery adventure **Noir** for Windows and Mac. In authentic black-and-white settings, you'll play a private eye attempting to solve six cases. The following month, ancient gods will deem you humanity's savior in the first-person action game **Reverence**, for Win 95. Around Christmas,

look for the hybrid Win 95/DOS adventure **The Shrinking Character**, in which you are the unwitting victim of a shrinking potion. (Cyberdreams; 818-225-1049; $49.95)

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Bloody & Magical

Interplay's God game, Blood & Magic, will give you 28 assorted warriors and sorcerers to do your bidding.

Dragon Dice was slated to be the first game stemming from a licensing agreement between Interplay and role-playing giant TSR. Unfortunately, this re-creation of traditional role playing featuring scores of actual tabletop dice was recently overhauled and delayed until September. To fill the void, this June Interplay will ship the action/strategy game **Blood & Magic**, based on an unexplored region of TSR's medieval fantasy world Forgotten Realms.

In Blood & Magic, you portray a powerful mage, teleporting acolytes or minions throughout this mysterious region in search of mana, magical items, and mystical temples. Gain enough experience and magical power and you can build up to five structures—crypts and churches, for example—for 28 units, including skeleton warriors, rangers, paladins, druids, clerics, griffins, dragons, and sirens. With your army in place, upgrade each acolyte's weapons, magic, and skills and destroy competing sorcerers. Unlike Blizzard Entertainment's Warcraft games, each level will feature its own distinct look, rather than repeated artwork or tile sets.

Consulting designer Zeb Cook, who is also working on another Interplay game based on the bizarre Planescape world that he designed while at TSR, says Blood & Magic's setting lets the game designers add a whole new universe to Forgotten Realms. Thanks to the Dupar region's murky background, Interplay can create new races, legends, magical items, and creatures, which Cook hopes table players will also exploit in their contests. (Interplay; 800-468-3775) *—Bill Meyer*

Platform: DOS CD/Mac CD
Release Date: June

A New World of Sequels

Hot on the heels of the series debut, New World Computing is already working on **Heroes of Might and Magic II** for release in October. And that's only one of the new games being cooked up.

New World Computing promises medieval and modern warfare this fall.

Lord Alamar returns to Middle Gate in HMM II with a legion of dark heroes, or Necromancers, to exact revenge on Lord Ironfist. Portray Ironfist's head knight, Arturius, and reclaim the land or carry out Alamar's evil crusade.

Expect 40 campaign scenarios with 3-D cut scenes, more than 50 monsters, 60 spells, and 70 magical artifacts. HMM II will also have new terrains, (such as an underground dungeon), larger strategic maps and battlefields, and expanded multiplayer capabilities.

New World is also publishing Random Games' squad-level tactical simulation **Wages Of War** for Windows 95. Hired by private individuals or corporations, you must negotiate the terms of each job, compile a diverse squad of mercenaries, and complete each mission according to your clients' expectations. Once in battle, you control each team member individually while considering such variables as time, equipment, and personality conflicts.

Finally, New World and Hypnotix (the developer of Wetlands) are readying the Windows 95 action game tentatively titled **Red Sector** for a September release. Unlike Wetlands, Red Sector's game play won't follow predetermined arcade paths: You'll have complete freedom of movement in multiple crafts during every mission. But look for the same cool rotoscoped character animation and graphic details as Jake Mason puts the Global Police Commission out of commission. (New World Computing; 800-325-8898) *–Bill Meyer*

Game Play Included

Rocket Science may be evangelizing the importance of good game play, but will its upcoming titles deliver?

Rocket Science burst onto the gaming scene in 1993, propelled by a lot of Hollywood hype and high expectations. After several mediocre titles such as Cadillacs and Dinosaurs, though, the company's buzz proved bigger than its bite. Rocket Science games delivered the technical goods with decent graphics and sound, but they left out the most crucial element: game play.

To its credit, the company has owned up to this omission, and rededicated itself to delivering a better crop of games this Christmas. This time, the company promises, you'll get great looks and sound as well as real action and adventure. Here's an early look.

Obsidian (Win 95 CD, Mac CD): A graphic adventure set in a technological dream world. As in Myst, you must travel through five stunning, reality-altering realms to unravel a complex mystery.

Rocket Jockey (Win 95 CD): A futuristic joust aboard high-powered rockets in a variety of no-holds-barred races. High on speed, low on control, you'll need to shoot cables onto arena poles in order to turn. Of course, these cables can also be used as strategic weapons. Expect non-combat races and a rocket version of lacrosse, too.

Ganymede (Win 95 CD): Race across a rugged 3-D moonscape in heavily armed, frictionless vaporsleds. Realistic driving physics, network play, and the ability to try each of the game's 20 or so levels should make for an intriguing ride.

The Space Bar (Win 95 CD, Mac CD): As detective Alias Node, you hunt through the Thirsty Tentacle Bar to discover the identity of a ruthless killer who's stolen top-secret technology. Expect a classic adventure game full of humor and unique alien characters. (Rocket Science; 800-987-625) *~Steve Klett*

Warcraft II: Tides of Darkness Cheats

Within the game, hit Enter for the MESSAGE prompt at the bottom of the screen, and type any one of these codes:

unite the clans: Win current scenario
you pitiful worm: Lose current scenario
it is a good day to die: God mode
glittering prizes: Gold, lumber, and oil boost
valdez: Oil boost
every little thing she does: Upgrade magic
deck me out: Upgrade all units
on screen: Display entire map
make it so: Accelerate building and unit upgrades
there can be only one: Final scenario
never a winner: Victory impossible
Scenario jump: Type tigerlilly, hit enter, type orc(1-14) or human(1-14)

Also, be sure to download the Internet game driver for Warcraft II from Kali (**http://www.internexus.net/kali/**) for Warcraft II. With this driver installed, follow the instructions and log on to Kali Central to initiate four-person multiplayer games over the Internet. Kali Central has no hourly rates, but a registered version of Kali will cost you $20. Finally, look for the expansion disc Warcraft II: Beyond the Dark Portal this summer.

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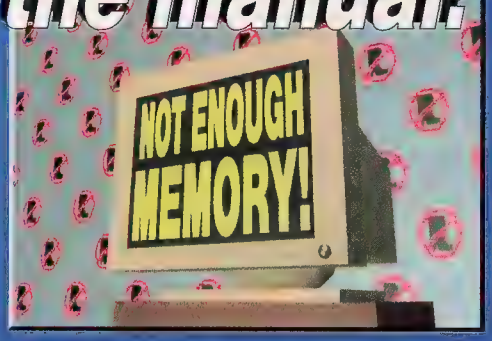

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NEWS

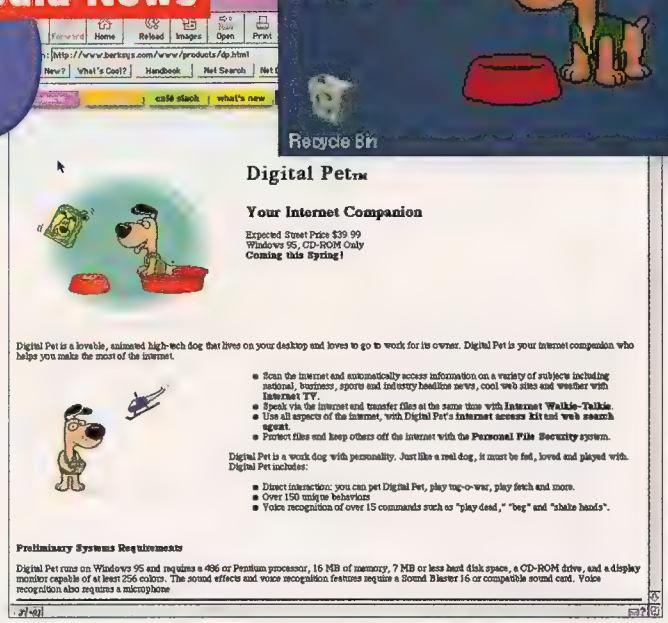
Multimedia News

Pet Project

What is it about dogs and computers these days? There are titles like Dogz, which lets you own and care for a virtual pup; P.A.W.S., which lets you step into the skin of a pooch; and Microsoft Dogs, which lets you pick out the perfect pet. Now get ready for another computer canine that's quite different: **Digital Pet**.

Berkeley Systems subtitles the upcoming Windows 95 program "Your Internet Companion," and as the name suggests, Digital Pet helps you make the most of the Net. Centered around a mischievous animated dog, it includes an Internet startup kit, search and news-gathering tools, and file-security features, among other things.

While these functions certainly aren't unique, Berkeley hopes their presentation and ease of use will make Digital Pet a popular computer companion. When you load the program from the Windows task bar, the Digital Pet appears at your service. Simply click on him to bring up his personal digital assistant, which will allow you to one-click to the Internet (straight to whatever piques your interest from the items Digital Pet serves up), "channel surf" preset Web categories for the latest news, or type in a topic that you want the Digital Pet to "metasearch" using all of the available Web search engines.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Digital Pet is a lovable, animated high-tech dog that lives on your desktop and loves to go to work for its owner. Digital Pet is your internet companion who helps you make the most of the internet.
Preliminary System Requirements

Berkeley Systems' Web site gives you the scoop on Digital Pet now—and will deliver news later.

In addition to these helpful tasks, Digital Pet can also be fun. He'll perform some 150 behaviors, including barking, rolling over, and begging. And like a real dog, you can even train him to respond to voice commands to perform common Windows tasks, such as opening a file. (Berkeley Systems; 510-540-5535; $39) *—Christine Grech*

Platform: Win 95 CD
Shipping: April

Destination: Big Fun

Personal computers just keep getting faster: speedier processors, multispin hard drives, and turbo-charged graphics. That's fine by computer maker Gateway 2000, but the company also wants to do something to make the experience bigger. Enter its **Destination** "multimedia theater system," the first PC designed to be used by several people at once in a large room, thanks to a big screen and wireless controls.

Destination combines a regular Pentium computer with a 31-inch screen and remote-control keyboard and mouse.

Destination is part computer, part large-screen TV. With its 31-inch VGA monitor, PCI graphics card/TV tuner, and remote-control keyboard and mouse, you'll be able to spend a little quality time with friends playing Quake, catch a few *Star Trek* reruns, or do a little Web surfing–all from the comfort of the couch.

The rest of the sub-$4,000 computer will be standard stuff: 120MHz Pentium, 16MB RAM, 1.2GB hard drive, 6X CD-ROM drive, sound card, and 28.8Kbps fax/modem. You'll just need to add the speakers–and your favorite games. Gateway will also sell the 31-inch monitor and remote keyboard and mouse separately, so you can upgrade your current computer. Look for Destination this spring. (Gateway 2000; 800-846-5235; less than $4,000) *–Christine Grech*

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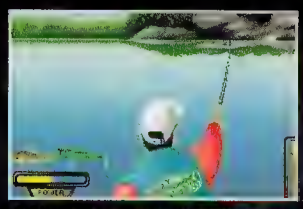

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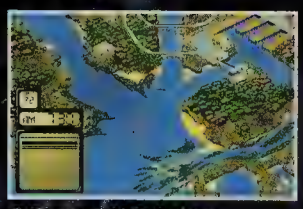

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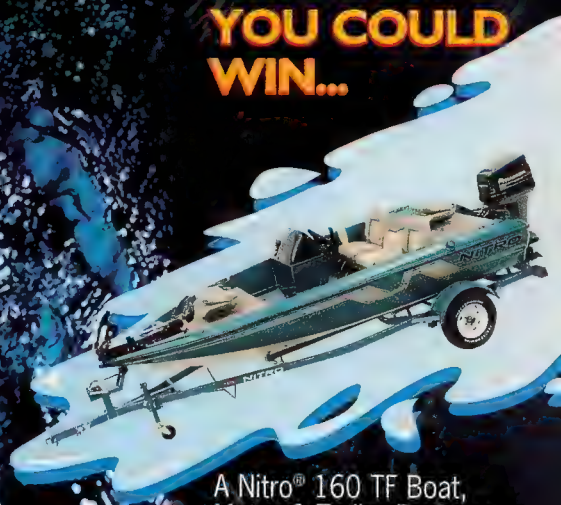

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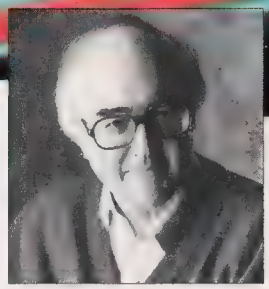
NEWS

news FLASH

- **The Digital Village**, the new London-based multimedia and game company formed by best-selling science-fiction novelist Douglas Adams (*The Hitchhiker's Guide to the Galaxy*), has attracted some powerful friends. **Apple Computer** and Digital Village have entered into a long-term technology and marketing alliance: Apple will provide technology to help the fledgling company create programming on television, the Internet, and CD-ROM. At the same time, **CapCities/ABC**, the TV and publishing conglomerate recently acquired by Disney, will help Digital Village create a new dramatic TV series using advanced technology.
- CD-ROMs don't have to be round! Pikosso Records in Berlin is cutting both audio CDs and CD-ROMs in unusual shapes that actually play in standard drives. Early **ShapeCD** efforts include everything from starbursts to hearts to beer mugs to David Bowie's head.
- More art discs to add to your collection: Byron Preiss Multimedia's upcoming **The Artist VR Series** will cover the lives and works of art-world superstars **Degas**, **Gauguin**, **Monet**, and **Van Gogh** with **America's Smithsonian: Discovering, Imagining, Remembering** and **The National Museum of American Art: Smithsonian Institution**.
- Remember the episode where Picard...? No more scratching your head over questions like these, thanks to the **STAR TREK: The Next Generation Episode Guide** and **STAR TREK: Deep Space Nine Episode Guide**, both from Simon & Schuster Interactive. Each title will contain an hour of QuickTime video highlighting its show, as well as plot summaries and production notes.

with James Burke



James Burke, the mind behind the popular Learning Channel TV show Connections, *has joined with Discovery Multimedia to create a game based upon his "web" of invention (for a review, see page 76). Like the TV show, the Connections game is hosted by Burke, who challenges players to find the links between various events in scientific history.* PC Entertainment *recently connected with Burke to discuss the new game.*

***PC Entertainment:* How long have you been involved with Connections?**

James Burke: I made my first *Connections* series in 1975 for the BBC. It showed on PBS in the United States. But the *Connections* "genre" comes out of my earlier work: I wanted to get people to understand the weblike nature of knowledge. It's like hypertext in the original sense of the word. Television was the only way to show it at the time. But I've been moving in [the multimedia] direction all along. We've been working on this CD-ROM off and on for about three years now.

***PCE:* Why a game rather than a more traditional edutainment title?**

JB: You get a great deal more out of it. The value of the whole thing is that you learn while you play the game and while you're entertained. I think people enjoy learning if it's fun.

***PCE:* How much involvement did you have in the creation of the title?**

JB: Discovery asked me if I would structure a web for them. So I structured five sets of links. I then provided them with that web and scripting material. I also turn up from time to time [in the game] as a guide or mentor.

***PCE:* Does being one of the few academic "stars" leave you any special restrictions on these types of projects?**

JB: Over the years, an audience has grown that expects a certain level of intellect, a certain level of amusement, a certain subtlety of humor. But since that's exactly how I am, it's easy.

***PCE:* Where do you see the future of titles like Connections?**

JB: I'd like to see this kind of stuff moving into schools a great deal more than it is. A more interconnected view will cut out fewer people. This approach to learning and training is a much more inclusive experience. People who might fail under traditional methods might not [be thinking] this way.

Right now, we're at a point in history where people tend to be specialists. Specialized people are not always interested in seeing the connections in things. However, I think we're coming to the end of that period of history.

Quirky But Cool

If you thought Voyager specialized in bizarre multimedia titles, get a load of Organa. Co-founded by Aleen Stein, the ex-wife of Voyager president Bob Stein, the new company has offices in New York and San Francisco. In addition to picking up several Voyager discs, Organa also has other unique titles in the works.

Organa publishes beautiful discs with limited appeal.

Take Science Wonder Productions' Visionaries in Exile, an elegant look at how 22 Austrian architects helped reshape modern American architecture. It's fascinating, but most Americans have never heard of any of these distinguished gentlemen, and probably won't care.

Or check out The Book of Lulu, now making its way from France to our shores. Developed by Dada Media in French, it uses beautiful lithograph backgrounds to tell a thoroughly modern fairy tale. (Organa; 212-233-5161; http://www.organa.com)

–Fredric Paul

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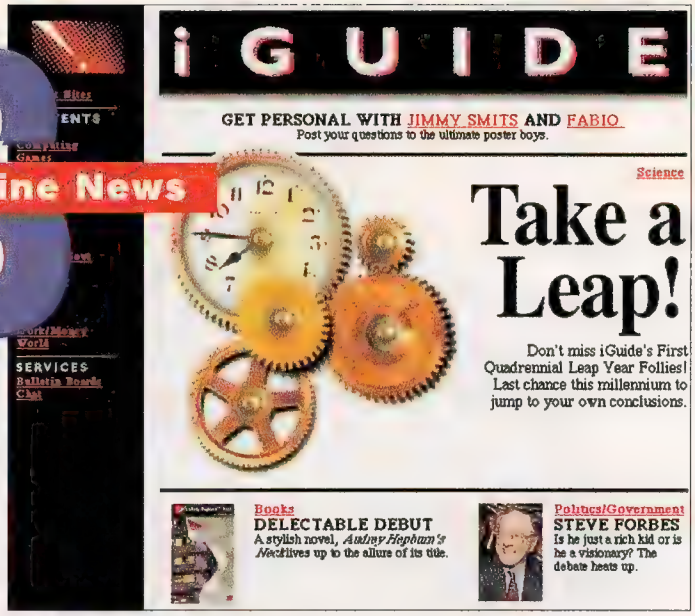
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On the Internet Trail

Not long ago, a lot of companies figured that you'd want your online entertainment delivered directly to you via their proprietary services, fee included. Then came the Year of the Internet. The result? Many of those services are closing their commercial-service doors and trying their luck on the Web.

In fact, the exodus to the Web is nothing short of stunning. The smaller services have little choice: GEnie's new owners will soon try their luck on the Web, while the former Delphi can now be found as a Web site called iGuide. AT&T Interchange, which started up last summer, is also headed for the Web. More startling was Microsoft's decision—after signing up 850,000 subscribers in half a year—to move the Microsoft Network to the Web (see Wirehead, April 1996, page 24). Bill Gates went so far as to break up his MSN team into subject-based divisions with an Internet focus. Even the biggest commercial online services are hedging their bets—AOL with its Global Navigation Network and CompuServe with its recently unveiled SPRYNET.

The trend is spreading to gaming services, too. Total Entertainment Network has shifted its plans from proprietary to Net-based. And the ImagiNation Network is making the move from being a fully proprietary service—dating back to its days as the Sierra Network—to the Net with Cyber Park, a 3-D virtual-reality game environment coming this summer.

INN officials say Cyber Park marks the first step toward a total transition to the Web. "We wanted to get onto a 'Universal Access Platform' that'll be available to anyone on the Internet, online services—even something that'll be ready for broad-band and cable," says INN spokeswoman Cindy Wilson.

Meanwhile, newer gaming offerings like DWANGO and Mpath are heading straight to the Internet, bypassing the standalone route. (We'll take a firsthand look at Net-based gaming next month.)

—Donald St. John

Cool Games
Live Opponents
Welcome to the ImagiNation Network
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Try!
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ImagiNation annexes the Web.

Where They Are

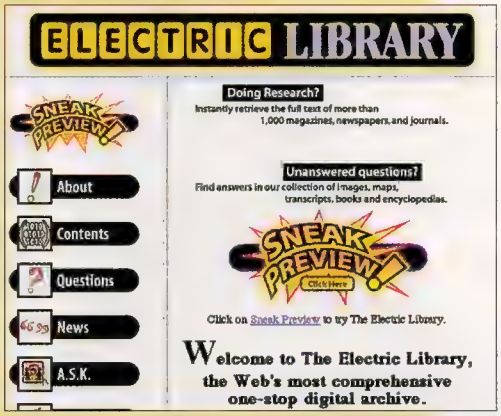
DWANGO: http://www.dwango.com
GNN: http://gnn.com
iGuide: http://www.iguide.com
ImagiNation Network: http://www.inngames.com
Microsoft Network: http://www.msn.com
Mpath: http://www.mpath.com
SPRYNET: http://www.sprynet.com
Coming soon: GEnie, AT&T Interchange

Virtual Stacks

By now, there are plenty of ways to search the Internet for entertainment content on the World Wide Web, even for archived mailing lists and Usenet newsgroups. But how do you find information that you'd seek in a typical library search—magazines, newspapers, and the like? The Electric Library makes such information searchable using the same keyword or subject methods that you're used to using on the Web.

The Electric Library, at http://www.elibrary.com, is basically Infonautics' Homework Helper—the popular search library for kids, still available on Prodigy—grown-up and converted to the Internet. You can now quickly search a variety of multimedia databases on the Web. Choose any topic—a person's name, a subject, a place—and search through magazine and newspaper archives, pictures, transcripts of television and radio programs, and even maps. The library returns matches rated by accuracy, with hypertext links to the material it finds.

The service contains content from more than 3,000 publications and costs $9.95/ month for unlimited access. (Infonautics; $10) ***—Donald St. John***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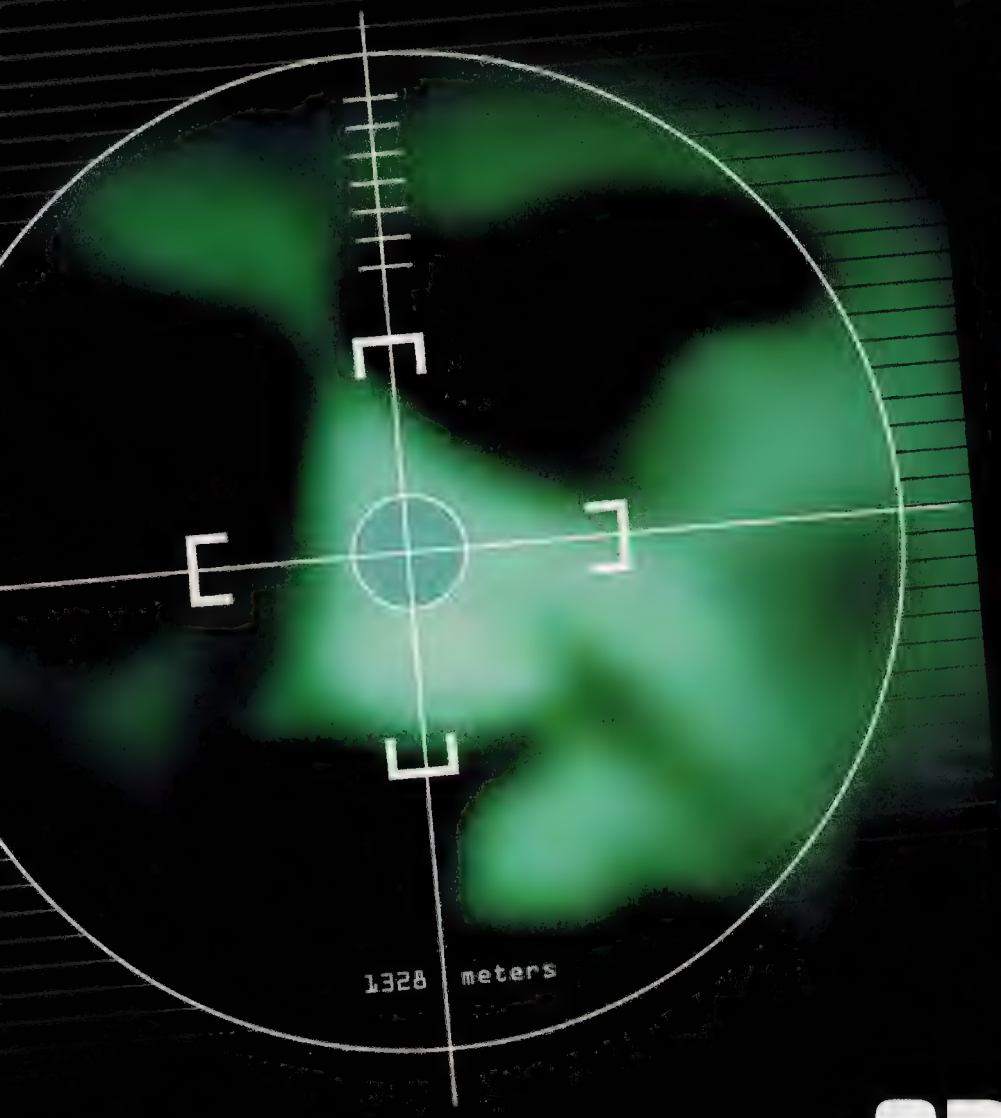

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off the WIRE

■ **CompuServe** has been busy. In addition to its SPRYNET Internet service (see "On the Internet Trail," page 18), the commercial onliner has unveiled its consumer-oriented WOW! offering. This stand-alone service stresses ease of use and family-oriented content, a move away from CompuServe's reputation as a more business-oriented online service.

■ It seems only fitting that you'd be able to see the Sci-Fi Channel on your personal computer, no? The nerd-friendly cable channel celebrated the first anniversary of its World Wide Web site, **The Dominion** (at **http://www.scifi.com**), by launching CU-SeeMe broadcasts of its science-fiction programming. A button on the site gives you the information you need to access the CU-SeeMe reflector.

And the Answer Is...

Bored with all the music you've heard lately? Well, why not let Agents, Inc.'s Firefly help you find something new?

Firefly may be a harbinger of one future direction of the World Wide Web: an "intelligent agent" that over time learns your interests, combines that information with the pooled tastes of other users, and then recommends things you may like. The Firefly project, which can be found at http://www.ffly.com, grew out of research at MIT's Media Lab. (Veteran online surfers may remember two earlier versions: Ringo, an e-mail version of Firefly, and HOMR, which was essentially the beta version.)

Once you've gone through the free, simple registration, Firefly lets you into three areas. The Music section polls you on your opinion of several albums, then starts suggesting ones you may like. You can customize your requests by genre, artist, or rating levels, or search for artists by name. If you like, you can also submit reviews of particular albums. (We gave it a whirl by suggesting bands as diverse as Celtic folkers Steeleye Span and Aussie rockers Midnight Oil. We got back a list that included Nick Drake, the Beatles, Gang of Four, and John Wesley Harding. Dead on, we'd say.) The People area is where you and other Firefly visitors create your own home pages, complete with likes, suggestions, and personal info. Finally, there's Buzz, a threaded chat area where you can talk Jimi Hendrix or Smashing Pumpkins to your heart's content.

Agents CEO Nick Grouf says Firefly will branch into other entertainment areas, including movies, as well as more serious pursuits such as financial topics. Also, expect interest areas to cross-pollinate: Eventually, you may input Bruce Springsteen's "Blood Brothers" and get back a suggestion to rent The Godfather. (Agents, Inc.; 617-234-5400)

–Donald St. John

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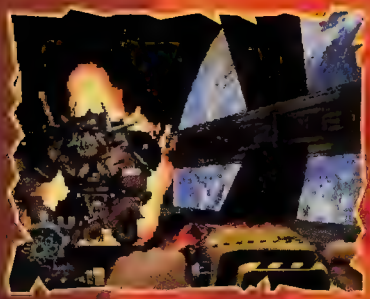
"It makes pretty much every PC game we've ever seen - Doom included - look slightly dull. Honestly."
— PC Gamer

"Duke truly looks like a 3D supermodel of a game: sleek, sexy and gory with lead-thrashing action."
— Strategy Plus



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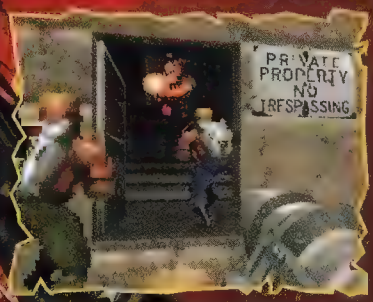

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Leader Board

The best-selling PC and Mac games and multimedia entertainment software

Warcraft II: Tides of Darkness stays a strong No. 2 on the PC Games list.

Gabriel Knight: The Beast Within debuts at No. 4 on the PC Games Leader Board.

PC Games

RATING	TITLE	LAST MONTH	MONTHS ON CHART	OUR RATING
1	**Myst** Stunning visuals, haunting audio, and intriguing puzzles keep this venerable adventure at the top of the Leader Board. (Brøderbund; 800-521-6263; Win CD; $54.95)	1	21	★★★★★
2	**Warcraft II: Tides of Darkness** Crisp graphics, challenging game play, and multiplayer capabilities keep this excellent Orc-vs.-Human epic near the top of the Board. (Blizzard Entertainment; DOS CD; 800-953-7669; $50)	2	2	★★★★★
3	**Rebel Assault II: The Hidden Empire** Engage the Evil Empire in your X-Wing fighter through 15 daring missions. May the Force be with you. (LucasArts Entertainment; 800-782-7927; DOS CD; $54.95)	3	2	★★★★
4	**A Gabriel Knight Mystery: The Beast Within** Gabriel is back in search of a four-legged killer in this six-disc interactive video adventure. (Sierra On-Line; 800-757-7707; Win/Win 95/DOS CD; $64.95)	–	1	★★★★
5	**Doom II** This hair-raising sequel has more than 30 levels, 7 hellish new creatures, and a double-barreled shotgun. (GT Interactive; 800-434-2637; DOS CD; $44)	–	13	★★★★ 1/2
6	**The Ultimate Doom Thy Flesh Consumed** All three original episodes of Doom, plus nine perilous new levels, on one action-packed CD-ROM. (GT Interactive; 800-434-2637; DOS CD; $30)	8	6	–
7	**MechWarrior II** Align with the mighty Wolf or Jade Falcon Clan to do battle in an assortment of awesome Mechs. (Activision; 800-477-3650; DOS CD; $59.95)	–	5	★★★★ 1/2
8	**Command & Conquer** Engage the evil Brotherhood of Nod behind enemy lines in this action-packed strategy game's dozen-plus missions. (Virgin Interactive Entertainment; 800-874-4607; DOS CD; $59.95)	–	3	★★★
9	**Microsoft Flight Simulator 5.1** Upgraded graphics and new features keep this popular flight sim on the Board. (Microsoft; 800-426-9400; DOS, DOS CD; $59.95)	5	7	★★★★
10	**Hexen** New monsters, simple puzzles, and a bit of role playing give a fresh look to this solid Doom-style game. (GT Interactive; 800-434-2637; DOS CD; $49)	6	3	★★★1/2

Mac Games

RATING	TITLE	LAST MONTH	MONTHS ON CHART	OUR RATING
1	**Myst** Stunning visuals, haunting audio, and intriguing puzzles keep this venerable adventure at the top of the Mac chart. (Brøderbund; 800-521-6263; Mac CD; $54.95)	1	26	★★★★★
2	**Top Ten Pack** This compilation includes classics such as Chuck Yaeger Air Combat and PGA Tour Golf II. (Electronic Arts; 800-245-4525; Mac CD; $34.95)	–	1	–
3	**Rebel Assault II: The Hidden Empire** Engage the Evil Empire in your X-Wing fighter through 15 daring missions. May the Force be with you. (LucasArts Entertainment; 800-782-7927; Mac CD; $44.95)	–	1	★★★★
4	**Doom II** Doom arrives on the Mac in this hair-raising sequel, complete with more than 30 levels and 7 hellish new creatures. (GT Interactive; 800-434-2637; Mac, Mac CD; street price $40–$50)	2	7	★★★★ 1/2
5	**Dark Forces** A clever twist on the Doom concept, featuring more strategy and a cast of *Star Wars* characters—now for the Mac. (LucasArts Entertainment; 800-782-7927; Mac CD; street price $44.95)	3	7	★★★★ 1/2
6	**F/A-18 Hornet 2.0** Excellent graphics, voice messages, and enhanced instrumentation make this one of the best flight sims on the market. (Graphic Simulations; 214-386-7575; Mac, Power Mac; $45)	9	2	★★★★★
7	**Links Pro CD Macintosh** Photorealistic courses and players as well as humorous sound bites set this groundbreaking golf game apart. (Access Software; 800-800-4880; Mac; $69.95)	7	12	★★★★
8	**Rebel Assault** Intense graphics and furious *Star Wars* action highlight this classic shooter. (LucasArts Entertainment; 800-782-7927; Mac CD; $19.95)	4	15	★★★★
9	**SimCity 2000** Build your own city of the future with this classic urban-simulation game. (Maxis; 800-336-2947; Mac, $49.95; Mac CD, $69.95)	4	26	★★★★★
10	**The Ultimate Doom Thy Flesh Consumed** All three original episodes of Doom, plus nine perilous new levels, on one action-packed CD-ROM. (GT Interactive; 800-434-2637; Mac CD; $40)	–	1	–

Multimedia Entertainment Titles

RATING	TITLE	LAST MONTH	MONTHS ON CHART	OUR RATING
1	**Microsoft Encarta** The latest installment of the best-selling encyclopedia features online updates and more videos, photos, articles, and maps. (Microsoft; 800-426-9400; Win CD, Mac CD; $54.95)	3	23	★★★★ 1/2
2	**Disney's Animated StoryBook: Pocahontas** Relive the life and times of Pocahontas through the eyes of Disney. (Disney Interactive; 800-900-9234; Win CD, Mac CD; $30)	2	2	★★1/2
3	**Disney's Animated StoryBook: Winnie the Pooh and the Honey Tree** Introduce your children to Pooh Bear in one of his classic misadventures. (Disney Interactive; 800-900-9234; Win CD, Mac CD; $32.95)	4	5	★★★★ 1/2
4	**Math Blaster: In Search of Spot** Your little ones will learn math as they join Blasternaut in his search for the lovable Spot. (Davidson & Associates; 800-545-7677; Win CD; $35)	–	1	–
5	**Dr. Seuss's ABC's** Favorites Icabod and Izzy host this alphabet soup full of silly characters and clever animations. (Living Books; 800-776-4724; Win/Mac CD, Win 95 CD, Power Mac CD; $37)	5	4	★★★★★

Leader Board is a compilation of top-selling computer games and multimedia entertainment titles in 1,300 retail stores for January 1996. It excludes CD "packs" that contain both games and multimedia titles, generally composed of older products. "Months On Chart" does not necessarily indicate consecutive months. Source: PC Data

"The trail was colder than an icebox in an igloo. I had a list of shady suspects longer than my bar bill at the Dew Drop Inn. But I was on to something. She was 5 feet 4 inches of trouble and I was just an inch away from being 6 feet under."

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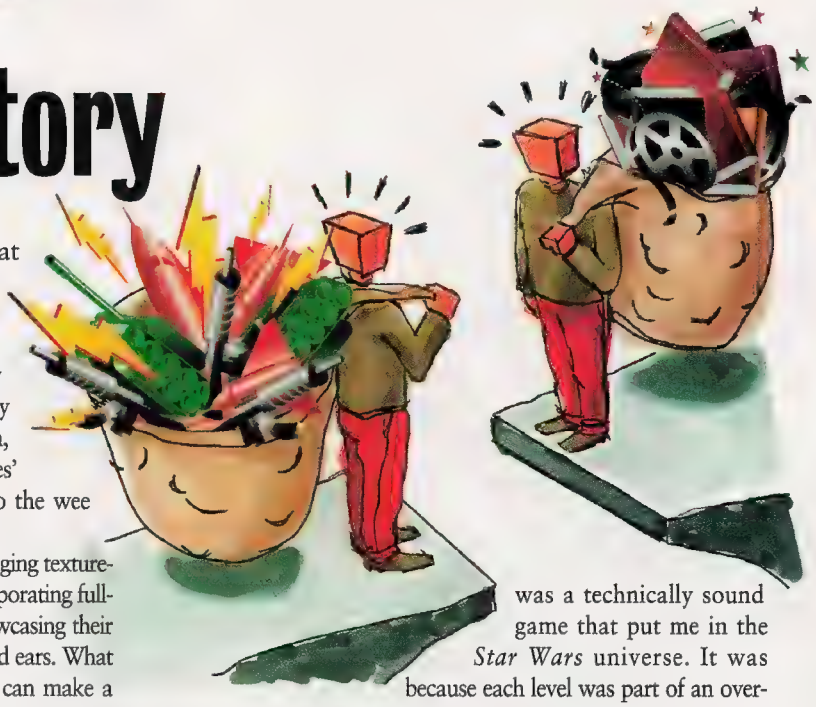
Steve Klett

Tell Me a Story



Once upon a time, it was the story that drew The Ref into the realm of computer games.

The first text-based Zork games and the early Ultima titles appealed to me, not because of their glitzy graphics, live-action video, and frenetically gory action, but because of their suspension of disbelief—their stories' ability to suck me in and keep me playing well into the wee hours of the morning.

Now that computers are becoming more adept at slinging texture-mapped polygonal graphics around the screen and incorporating full-motion video, developers seem to be obsessed with showcasing their technical talents with games that overwhelm the eyes and ears. What they're overlooking, in many cases, is something that can make a good game great and a great game even better: the story.

Take Doom, for instance. When it first appeared it was a supreme technical achievement—a fluid gaming environment seen through the player's own eyes, full of nonstop action. Initially, I could easily forgive its ludicrous story of a space marine faced with saving Earth from hordes of demons all by his lonesome. (Hollywood actually thinks that's enough to base a movie on—yikes! For more information, see "Troubled Times in Siliwood," page 32.) But with the appearance of Doom II and all its add-ons—Master Levels of Doom II (see review, page 52), Ultimate Doom, Final Doom, etc.—I think it's clear you can have too much of a good thing.

Halfway through my room-to-room elimination of demon after demon in Doom II, I simply lost interest. Why? The thrill of the technical feats was exhausted and there was no plot to pull me through.

Love 'em or hate 'em, Origin's Wing Commander games provide a good balance of glitz, game play, *and* story.

Doom isn't the only shooter with a weak storyline. In 3D Realm's Duke Nukem 3D you must save the world from aliens bent on stealing Earth's women for breeding purposes. Yawn. In fact, like id, 3D Realms doesn't throw in the story until the game is pretty much done.

Some Doom-clone makers have tried to capitalize on the narrative shortcomings of most first-person action games. *I had* to finish LucasArts' Dark Forces, for example, and it wasn't just because it was a technically sound game that put me in the *Star Wars* universe. It was because each level was part of an overall story that I had to play through the game to discover.

Another action game that shows promise in the story department is Velocity's upcoming Strife. Though it's based on id's aging Doom engine, Strife will let you interact with virtually every character in the game. In fact, if you kill someone before talking with him, you may not get a vital clue you need to reach the end. Nice.

Still, sketchy stories predominate, and they're not just limited to Doom and its clones. The estimable MechWarrior 2 has virtually no storyline at all—just some disjointed pages of typo-ridden text that dribbles on and on about Clan history. A great game, but it would have been even better with a cohesive story.

Thankfully, adventure-game developers do recognize the need for a real story. And because it really isn't fair to expect a programmer to pen a tale worthy of a novel, some developers are turning to pros for help. Legend bases its Shannara title on Terry Brooks' fantasy novels, while 7th Level will use the works of Raymond Feist in Return To Krondor.

Love 'em or hate 'em, Origin's Wing Commander III and IV are probably the best examples of games that provide a good balance of glitz, game play, and story (see review, page 72). In fact, the bulk of Wing IV's $10 million budget went toward creating the video-based story, not the space-sim game play.

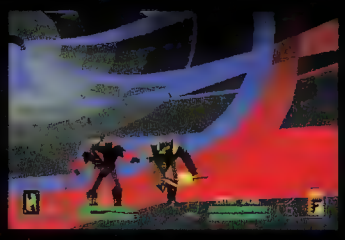
But can a good story carry a game? It will be interesting to see the reaction to Looking Glass Technologies' mission-based combat simulation Terra Nova: Strike Force Centauri. The graphics in the action portions of the game are dated, but Terra Nova offers a developed game universe much richer in story than most action-oriented games (see review, page 42).

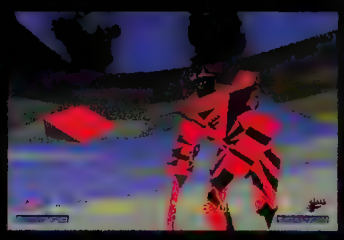
My opinion? Mass destruction, smooth frame-rates, and video are necessary, but not sufficient. I want to be told a story, too.

The Ref welcomes your responses at sklett@iftw.com.

ILLUSTRATION BY ADAM VANDERHOOF

Your Image Of A Brutal Sport Is About To Be Shattered





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Christine Grech

A Day in the Multimedia Life

The great thing about weekends is that you don't have to think about work. 'Course, if you're the Multimaniac, chances are you'll end up at the computer even on Saturdays and Sundays. In fact, I've come to rely on my multimedia PC so much that even on a typical day off, my computer is a constant companion.

9:00 a.m. Sleeping in is great, especially when I can follow it up with some strong, black Peets and a look at the latest news—sans newsprint. I get my scoops from the World Wide Web's Yahoo's Headlines from Reuters.

9:30 a.m. Of course, no look at the morning paper is complete without a crossword puzzle. To satiate that mind-bending need, I take Reader's Digest Multimedia Crosswords for a spin. The game lets me choose a puzzle category, then serves up multimedia clues. If I get stuck, I can cheat and have it fill in the correct answer.

10:00 a.m. Enough lollygagging. Time to get the blood flowing with a little workout, courtesy of Cory Everson: Body, Mind, and Soul. Cory's text advice and video demonstrations help me brush up on proper weight-training form for my various exercises. I also record what I've eaten for breakfast, so the program can keep track of my nutritional habits.

12:00 p.m. After working out, I'm back at the keyboard to exercise my mind with my daily Spanish lesson. My tutor is The Learning Co.'s Learn to Speak Spanish. I have to prepare for my upcoming trip to Costa Rica, so the title's voice-recognition support, which lets me pronounce words and tells me how I'm doing, is a big help.

1:00 p.m. I make it a quick lesson, though, because I'm getting together with friends and have to figure out what to do for dinner. First, I load up Expert Software's Restaurant Guide. This disc has descriptions, menus, photos, and contact information for hundreds of restaurants across the country. I browse the mere 47 possibilities in the San Francisco area, but since I can't type in criteria or get reviews, I decide to pass on the dining-out idea. Why not cook instead?

1:30 p.m. Multicom's Better Homes & Gardens' Great American Cooking to the rescue. I decide on chicken, and a search yields 14 recipes. The chicken breasts stuffed with spinach and mushrooms over spinach fettucine seem like just the thing, followed up by chocolate-chip poundcake. Great American Cooking helps create my shopping list, too.

2:00 p.m. Before heading to the grocery store, I choose a couple of videos to rent using Microsoft's Cinemania '96. I don't want to risk missing out on this double feature, so I call a local video store (phone number provided by the PhoneDisc PowerFinder directory) to reserve it. Then Rand McNally's Street Finder tells me how to get there.

4:00 p.m. I'm back home again and have done all of my prep work for the evening meal. I'll relax a little with a magazine—digital, of course. I load up Blender and "read" a feature about artist Art Spiegelman, and then check out The Robot Wars event, where amateur-built robots battle it out for glory.

5:00 p.m. My friends will be here soon, so I've got to shut off the computer. But who knows—maybe if the movies don't go over well, we can gather around the keyboard and play a little cultural trivia with You Don't Know Jack

To-Do List

- Yahoo Headlines; http://www.yahoo.com/headlines/
- Reader's Digest Multimedia Crosswords; InterMedia; 215-387-0448; Win CD; $19.95
- Cory Everson: Body, Mind, and Soul; Philips; 800-883-3767; Win/Mac CD; $39.99
- Learn to Speak Spanish; The Learning Co.; 800-726-5087; Win CD; $109
- Restaurant Guide; Expert Software; 800-759-2562; Win CD; $19.95
- Better Homes and Gardens Great American Cooking; Multicom Publishing; 800-850-7272; Win/Mac CD; $19.99
- Cinemania '96; Microsoft; 800-426-9400; Win 95 CD; $34.95
- PhoneDisc PowerFinder 1996; Digital Directory Assistance; 800-284-8353; Win/DOS/Mac CD; $159
- Street Finder; Rand McNally; 800-671-5006, x402; Win CD; $59.95
- Blender; Dennis Publishing; 800-537-7300; Win CD; $29.95
- You Don't Know Jack; Berkeley Systems; 800-344-5541; Win CD, Mac CD; $29.99

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Air Warrior

With AOL in its hangar and an I. Magic CD as its future wingman, Air Warrior II is flying high.

Kesmai spent $250,000 to upgrade Air Warrior's cockpit art alone.

Go head-to-head with American bombers in your Focke-Wulf!

If flying's not your bag, you can always drive a truck.

Takes Off!

By Steve Klett

KESMAI'S AIR WARRIOR practically invented online flight sims when it debuted on GEnie back in 1987. Now, Air Warrior II, the sequel to the cult favorite, promises to re-create the genre for the mass market.

In terms of multiplayer gaming, the original Air Warrior was way ahead of its time. Players using different types of computers could download the game's graphical front-end, practice flying offline, and then test their dog-fighting talents against dozens of human opponents online. There were multiple aircraft from World War I, World War II, and the Korean War to choose from, and several players could fly the same aircraft, or even drive a tank to help take out an enemy airfield.

Of course, limited technology led to significant compromises. To keep the action smooth on slower computers, for example, the game confined onscreen action to a small window framed with dials and gauges. Fans put up with it because Air Warrior was the only online flying game in town.

That approach will no longer suffice. Faced with competition from new online flight sims such as ICI and Graphic Simulations' Warbirds and Domark's upcoming Confirmed Kill, Kesmai had to do something—not only to hang onto its core of faithful fans, but also to broaden its appeal to a much larger group of flight-sim pilots.

Major League Co-Pilots

What to do? Simple: Strike a deal with the world's biggest online service provider to carry Air Warrior II and sign up a top game publisher to put out a boxed version of the game designed for offline play. In August, Interactive Magic—maker of the well-received helicopter sim Apache—plans to release a boxed version of Air Warrior, aptly named Air Warrior II. And by the time you read this, a new Windows 3.1 front-end called Air Warrior For Windows, which you need to play Air Warrior online, should be available on both America Online and GEnie. Kesmai is also working on a similar deal with CompuServe.

Getting together with the big online services should make a huge difference. Kesmai estimates some 20,000 Air Warrior pilots worldwide regularly take to the skies on GEnie, Delphi, and the Concentric Network. AOL will add another 5 million potential players. While GEnie dedicates just one server to the game, AOL will initially set up seven servers to handle Air Warrior traffic. (You will also be able to play the game via Kesmai's World Wide Web server, at **http://info.kesmai.com**.)

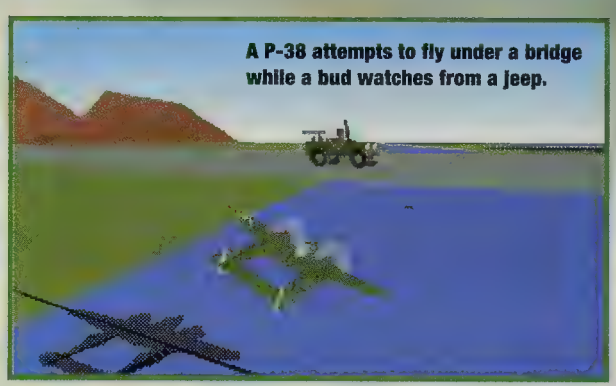
"Multiplayer gaming used to be so esoteric, such a small little niche, that game developers could dedicate only one man to a game," says Jonathan Baron, Kesmai's in-house producer for Air Warrior For Windows and Air Warrior II. "[But] now the market has reached the point where online games are ready to crack the mainstream, and so are we."

To back up its bold plan with a better, more inviting game, Kesmai beefed up its Air Warrior programming staff from one to nine people, added a full-time artist, and employed several detached teams to work on key components such as cockpit art.

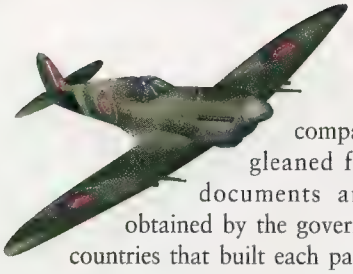
Attention to Detail

Kesmai sent some of these employees to photograph the cockpits of real aircraft. One team visited the RAF Museum in Hendon, England, where it shot the inside of vintage WWII planes such as the British Spitfire. Artists then used the photos as guides to hand-paint the game's cockpit art. The paintings were later digitized and modified—a labor-intensive process resulting in cockpits that mimic their real-life counterparts as closely as possible. Kesmai hopes that notoriously demanding flight-sim buffs—many of whom are actual pilots—will appreciate the painstaking attention to detail.

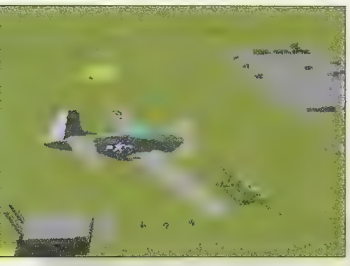
To make sure the planes fly as realistically as they look, the



A P-38 attempts to fly under a bridge while a bud watches from a jeep.



company used data gleaned from military documents and test-data obtained by the governments of the countries that built each particular plane. Institutions such as the Air Force Research Center in Dayton, Ohio, and the National Air & Space Museum in Washington, D.C., were valuable resources as well.



A Mustang and a P-38 strafe an airfield.

Air Warrior II's planes "will do what the actual planes did," claims Bruce Milligan, in-house producer for Air Warrior II at Interactive Magic. For example, the game models the effects of changes in altitude and air density on the performance of different planes' engine superchargers.

Cadets Welcome

If all this talk about flight mechanics has you worried about Air Warrior II's complexity, Kesmai wants to reassure you.

"Air Warrior is home to some of the finest flight-sim pilots in the world, which can be daunting for new players," acknowledges Baron. "We don't want people to be afraid to go online." To make things less intimidating, the game offers multiple online arenas to fly in, including one created especially for new players. Flyers can match their experience level to that of the competition.

But tough pilots aren't the biggest barrier grounding potential new Air Warrior recruits. The inherent difficulty of logging on to an online game is another concern.

"Online games, Air Warrior included, have suffered from a lack of an interface or an obtuse interface," says Baron. "We realize that what brings people to our game is a love of aircraft and a love of air combat, not a love of computers."

Besides improving the frame rate, the small play window leaves room to display lots of vital data.

Windows Makes It Easy

Kesmai is counting on Windows to make taking off online much more intuitive than it used to be. For example, to log in to the original Air Warrior, players had to type cryptic commands such as "/air" for a list of available airfields and "/avail" for a list of available aircraft.

The new Windows-based front-end makes getting started a simple matter of clicking on a few icons. Logging on to Air Warrior For Windows is designed to be as simple as clicking on a Fly icon, an arena icon, and a plane icon.

Windows will also allow flyers to resize their cockpit views. There's a full-screen view for close-combat situations, where you need to keep an eye on the opposition. But you can still use the old small-screen view and its surrounding dials and gauges to get more information on enemy airplane types, positions, and closure rates.

Finally, Windows' ability to handle graphics should boost Air Warrior II's gee-whiz score. In addition to the new cockpit art, Kesmai will institute a new terrain system in both the online and boxed versions of the game. Moving objects will include aircraft carriers and ship convoys. The original game treated all objects other than planes and tanks as part of the immovable earth.

This new terrain system will up the realism factor by forcing players to land on moving carrier decks, track wandering ship convoys, and strafe hurtling trains. (Kesmai is even considering including flocks of sheep that scatter when buzzed by planes.) The new system will also be able to modify the terrain to fit a particular historical scenario. A Battle of Britain scenario, for example, might swap in new terrain to represent the channel coasts of England and France.

Overflowing Hangar

Air Warrior For Windows, the online version, and the standalone Air Warrior II will offer eight brand-new, realistically modeled WWII aircraft (and several variants) in addition to Air Warrior's current stable of 26 planes.

Most of the new aircraft are designed to better represent the war's early air battles, such as the Battles of Britain, Malta, and North Africa. The Wildcat and Tomahawk beef up Air Warrior's offerings for early fighting in the Pacific theater. The Sturmovik, Stuka, and La-5 expand the Eastern Front iron. Finally, the Focke Wulf and Messerschmitt variants represent Germany's air power near the end of the war.

Biplane Air Warrior Aircraft

World War I
Bristol F.2B Brisfit
Fokker D.VII
Fokker Dr.I Triplane
Sopwith Camel
Spad S.XIII

World War II
A-26B Invader
A6M5a Zero
B-17G Flying Fortress
B-25J Mitchell
C-47 Skytrain
F4U-1D Corsair
F6F-3 Hellcat
Focke-Wulf 190-A-8
G4M2 Betty
Ju-88A-4 Stuka
Ki-84 Ia Hayate
Messerschmitt Bf-109f-4
Mosquito Mk XVI
N1k1-J Shiden "George"
P-38J Lightning
P-47D Thunderbolt
P-51D Mustang
Spitfire Mk IX
Yak-9d

Korean War
F-86F Sabre
MiG-15

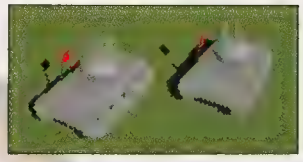
Ground Vehicles
Jeep
Flakpanzer IV "Fireball"
T-34 tank
Truck

Current Air Warrior Aircraft

Curtiss P-40D Tomahawk
Grumman TFM-3 Avenger
Grumman F4F-3 Wildcat
Hawker Hurricane II
Ilyushin IL-2 Sturmovik
Ju-87 Stuka
Lavochkin La-5
Messerschmitt Me-110 C4

Variants
Focke-Wulf 190 A4
Focke-Wulf 190 D9
Messerschmitt Me109 E4
Messerschmitt Me109 K4
Supermarine Spitfire MkI
Supermarine Spitfire MkV

Out of the Box



The ability to control ground-based vehicles adds some variety.

To help attract new players, Kesmai is developing the standalone version to be published by Interactive Magic. One of its first priorities will be jettisoning some baggage from the original. The first boxed version of Air Warrior—Super VGA Air Warrior from Konami—was plagued by lackluster graphics, poor artificial intelligence, and repetitive missions.

Fortunately, from what *PC Entertainment*'s seen so far, Air Warrior II promises to do more than right the wrongs committed by its predecessor. In fact, it looks ready to contest or surpass all current combat flight sims with its sheer breadth of options, challenge, and realism.

Like its online forebearer, the game will span World War I, World War II, and the Korean War, but the focus definitely remains on WWII. Air Warrior II will feature more than 100 standalone missions, the majority of which will focus on WWII and its various theaters. You'll be able to choose from some 34 aircraft—and several variants—representing all the major countries involved in the conflict (see "Overflowing Hangar" for a complete list of planes).

If that's not enough, the game will also offer between three and six tours of duty, each composed of up to 40 missions. You'll be able to fly tours for the Germans, Americans, Japanese, and Russians. Even better, all the tour missions are separate from the standalone missions.

The missions won't be all fluff, either. A random factor will require pilots to make in-flight decisions that could alter the parameters and goals of a given mission. For instance if you're flying a bomber escort mission, you'll be faced with the choice of leaving the bomber group to intercept enemy fighters or staying close to the formation.

Better yet, each mission in a tour of duty will have several parameters for success—there won't be a set winning or losing path. This means you won't be required to shoot down every enemy plane or absolutely demolish a given target to advance to the next mission. Just going out and surviving may be enough—or maybe not.

The tours' missions will automatically tailor themselves to suit your abilities. For instance, if you do poorly at dogfighting and well at dive bombing, you'll be assigned more bombing missions.

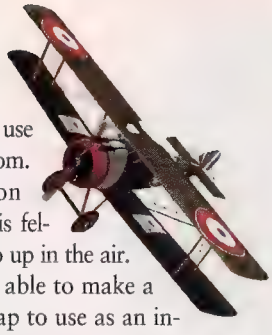
The artificial intelligence used for the computer-flown enemy aircraft also promises to be extremely advanced. Kesmai is currently working on slightly "dumbing-down" the AI of the computer pilots, who fly at the extreme edge of the performance envelope at all times, a feat few human pilots can match. Luckily, you'll be able to modify the difficulty level to your liking.

Top Gun?

Of course, Air Warrior II in the box will be designed from the ground up to train pilots for online play. All the commands and interfaces will be the same ones used in the online version. As a bonus, the boxed version will include a coupon good for free online airtime.

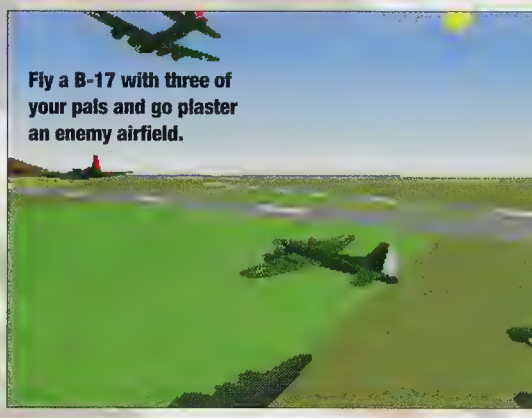
"Playing against other people is infinitely more fun than playing the computer, but we're hoping the standalone version will give you the illusion of playing against real people while teaching you all you need to know to go online," says Milligan.

The boxed version will also bring new features to the online version. One of the biggest will be a mission editor that will let players set up a mission offline—including waypoint and target information—and then bring it online for use in a virtual briefing room. That way, a squadron commander can brief his fellow flyers before they go up in the air. Each pilot will also be able to make a copy of the mission map to use as an in-flight map. This should help reduce the confusion and chaos that plague those players trying to organize or take part in a coordinated airstrike.

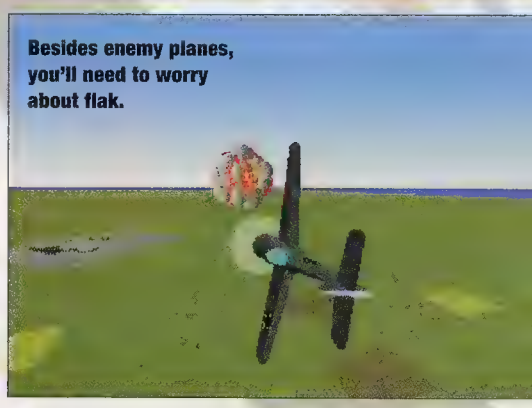


Taken together, the new online interface and standalone game are a major upgrade for a high-quality but aging game. Air Warrior II should satisfy all the combat cravings of fighter-pilot wannabes, whether they fly online, offline, or a little of both. ■

For some slower, more romantic action, check out the WWI arena.



Fly a B-17 with three of your pals and go plaster an enemy airfield.



Besides enemy planes, you'll need to worry about flak.

Sound Off

Air Warrior II will also sport dozens of new sounds designed to raise the level of realism, including:

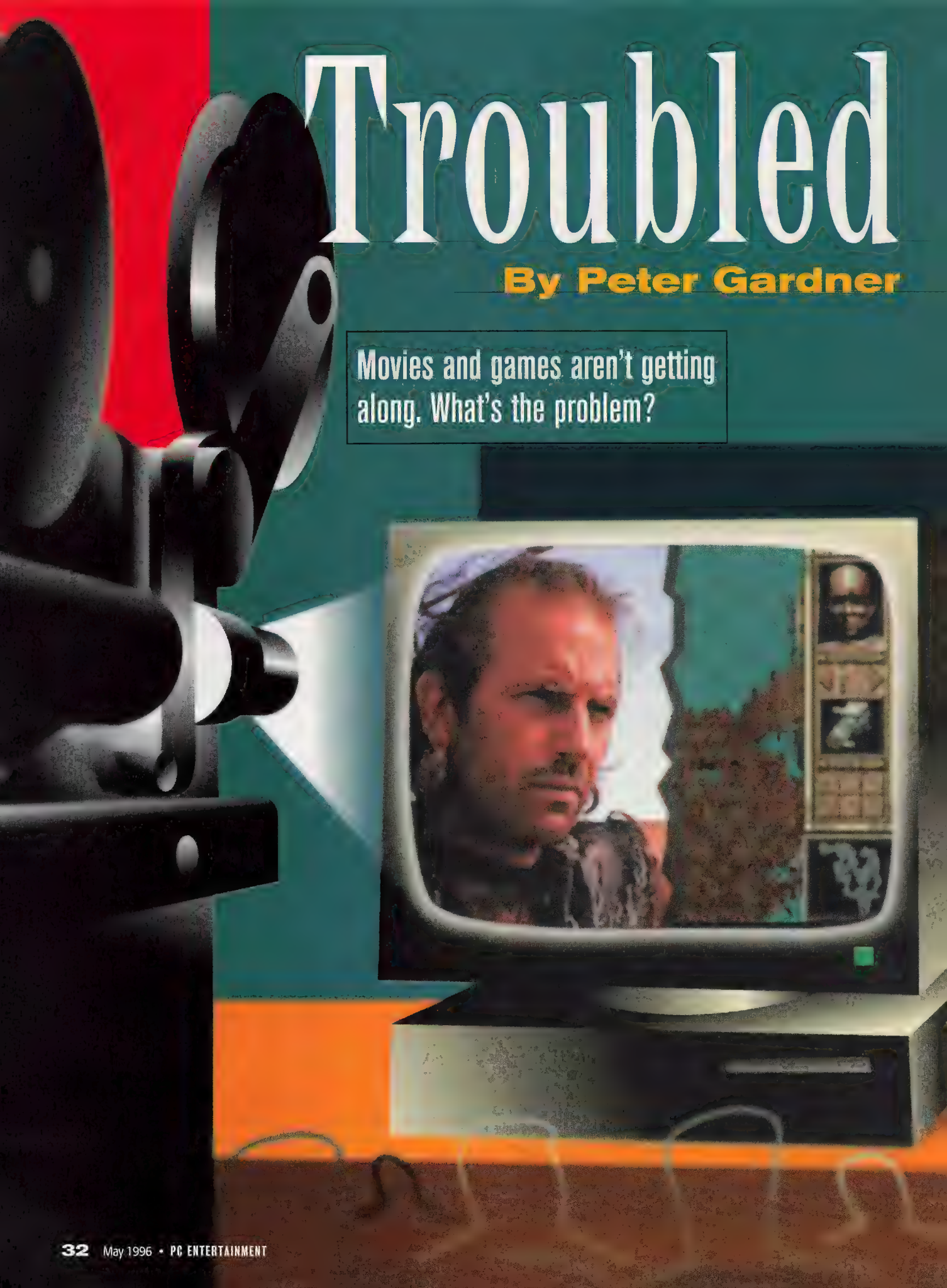
- Big Band music altered to mimic radio broadcasts.
- German and Japanese music.
- Background conversations at airfields.
- Distinct engine noises for different types of planes. These noises will vary depending on an engine's distance and the extent of battle damage suffered.
- Several different machine gun, cannon, and explosion sounds.
- Special effects such as the Stuka dive siren and stress sounds when you approach the performance limits of your aircraft.

Air Warrior will also provide an online database of the game's aircraft and vehicles, as well as suggestions from Air Warrior veterans on how to fly each plane.

Troubled

By Peter Gardner

Movies and games aren't getting along. What's the problem?



Times in SILIWOOD

Hollywood—a town where, in the words of screenwriter William Goldman, "nobody knows anything"—is still obsessed with merging with Silicon Valley. The moguls are careening into Siliwood as fast as they can do lunch, frantically making sure that movies beget computer games and games beget movies—not to mention books and just about every other medium imaginable.

All of this cross-pollination—from *Congo* and *Johnny Mnemonic* computer games to Street Fighter and Doom movies—must mean that the unlikely pairing of the two industries is a success, right?

Wrong.

After more than two years and countless cross-development flops on both large and small screens, movie makers and game developers have yet to come up with the magic formula. What's the problem?

ILLUSTRATION BY ANTHONY LUKBAN

CD-ROM Sequels

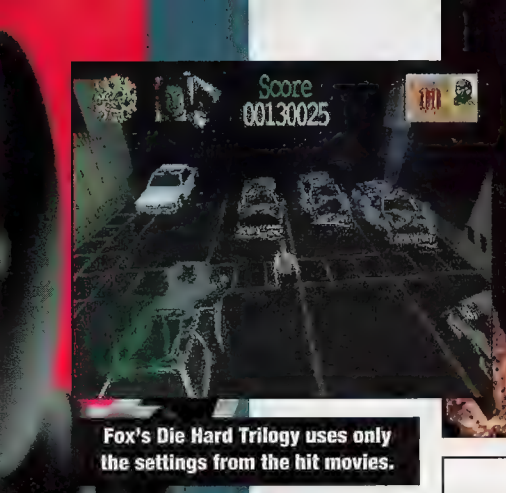
Look at the latest trend in movie merchandising, the CD-ROM tie-in. The decision to take your favorite (or least favorite) blockbuster and develop it as a continuing electronic experience for home computers is not an artistic one, it's a commercial one. Ever since Hollywood figured out that the gaming industry was outgrossing the movie industry by some $1 billion a year, the studios have been scrambling for a piece of the action. One producer at a major motion-picture studio flatly states that he's not interested in a project unless it can also be developed into a CD-ROM game.

Bram Stoker's Dracula, which Sony Interactive released simultaneously with the movie in 1992, was one of the first games to benefit from a brand-new production consideration: shooting extra film footage to be used exclusively in the game version. After all, if people will pay $7.50 to see the movie, won't at least some of them shell out $40 to play a game that looks like the movie?

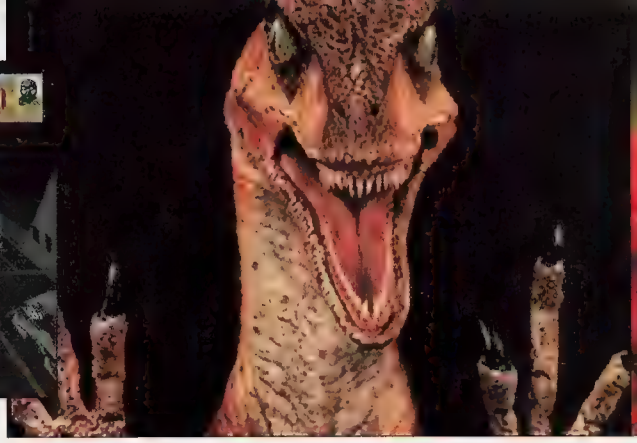
Not necessarily. The assumption that the film will sell the game is a very dangerous thing. Just as a successful book doesn't automatically lead to a hit movie, a blockbuster movie can't guarantee a smash game. *Jurassic Park*, for example, topped the charts as a book *and* a movie. So genetically engineered dinosaurs running amok on a secluded island ought to be a natural for a CD-ROM game, right? Yet, the first game from Universal Studios' interactive arm—which began development as a premiere offering by 3DO for its new game platform just after the film was finished—disappointed gamers, reviewers, and retailers. A few clips from the film simply weren't enough to offset weak challenges and the glaring absence of original ideas or effects.

The company has learned its lesson. "While Universal shows are always considered [for game development], we are now just dedicated to making good games no matter where the concept comes from," says Kelly Flaherty, marketing director of Universal Interactive Studios.

On the other hand, what if the original movie bombs? Last summer, the multimillion-dollar production of *Judge Dredd* sank without a trace, despite Sylvester Stallone's



Fox's Die Hard Trilogy uses only the settings from the hit movies.



Jurassic Park was a roaring movie success, but a computer game flop.

Doom: The Movie, coming to a theater near you?

star power in the title role. According to Acclaim Entertainment, however, the Judge Dredd game developed quite a cult following with gamers and was a success on both Sega and Nintendo platforms, though the company won't cough up specific sales figures.

Sometimes, even a project that seems to straddle both formats fails miserably. Sony's Johnny Mnemonic—based on a popular short story by cyberpunk grand-daddy William Gibson—was a commercial and critical disaster as both a game and a movie.

Exacerbating this potential for double failure is the familiar problem that motion-picture producers always face: glutting the marketplace with tie-in products for a film before it's a proven success. Take Twentieth Century Fox's *The Pagemaster*, the live-action and animated film that boasted the most expensive product tie-in campaign of any movie in history, reportedly to the tune of almost $100 million. Released in November 1994, the film had all but vanished from theaters by New Year's Day.

Two victims of this early demise were The Pagemaster video game, Fox Interactive's maiden voyage, and Turner Interactive's top-notch kids' CD-ROM game The Pagemaster. In the latter case, a quality title was torpedoed by the market failure of its license. (For more movie and edutainment tie-ins, see "A Mickey Mouse Operation," page 37.) This failure may have affected Turner's outlook on CD-ROM production: The company dumped its Interactive division in February.

As for Viacom's late-to-the-game Congo, which shipped about six months after the movie's release, the company says the movie tie-in was not the sole reason for the game. "Remember that *Congo* was first a great book, and the game takes off where the movie ends, so it was never an intention to make the game just an extension of the movie," says Viacom spokeswoman Betsy Vorce.

Yet there's an ad for the game on the movie's home-video version, which hit the stores in January along with the game. When faced with the question of whether or not *Congo* was a success, Vorce acknowledges the film's uniformly bad reviews, but adds, "If $80 million in ticket sales is a failure, we should always have such failures to base games on."

Perhaps the most dramatic illustration of hitching a game to a high-profile movie may be the several *Waterworld* titles due this summer. Vince DeNardo, the producer of Interplay's PC Waterworld game (developed by Britain's Intelligent Games), stresses that the game is being delayed to ensure it's an exciting action/strategy title, not to distance it from the negative publicity surrounding the movie's release. "We read the script while it was in production," says DeNardo, who caught a bit of the acting bug after becoming a featured performer in the game's live footage. "We thought it offered a terrific and original environment for a game."

DeNardo also points out that despite the movie's huge cost and mountains of bad press, *Waterworld* has become something of a success, grossing well around the world and pulling in new revenue in the video-rental market. And he confesses that star/producer Kevin Costner, whose "hands-on" approach to making the film allegedly helped send costs skyrocketing, also stuck his fingers into the game-development process.

Fair Game

The book-movie-computer screen route isn't the only path to Siliwood. Things can go the other way. The practice of making films based on hit games is also gaining popularity.

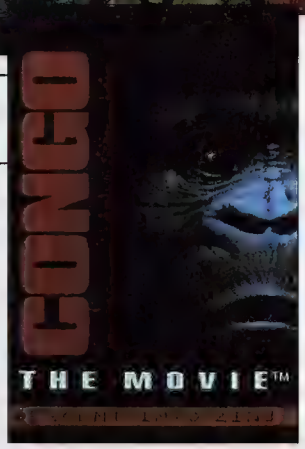
While imitation may be the sincerest form of flattery, it doesn't always lead to a successful movie. Two big-budget movies tied to games have borne this out. One of the first flops was *The Super Mario Brothers* (1993), an expensive extravaganza starring Bob Hoskins and Dennis Hopper as the plumber pair. Even these talented actors were unable to breathe life into simple characters never intended to do more than run around a pixelated game screen.

While last year's *Mortal Kombat* was a box-office success, *Street Fighter* flopped on the big screen, though it is doing better on home video. It seems the millions of fans of the games would rather control the characters' kicks on their PCs or game consoles than passively watch the fights while munching on popcorn in a darkened theater.

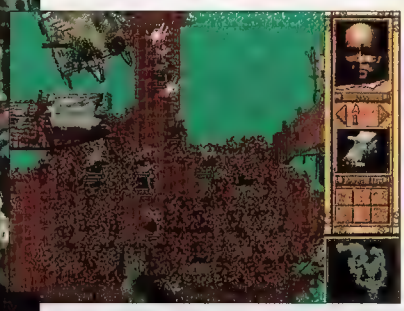
But ambitious game developers and studio execs searching for ideas aren't easily deterred. The next big CD-to-celluloid project may be Doom. Texas-based id Software is currently in talks with producer Ivan Reitman about a movie based on the popular shoot-'em-up's characters and situations, but with an original storyline.

Jay Wilbur, id's general manager, says that the development of the big-screen version of Doom demonstrates Hollywood's fickle feelings about mingling with the computer biz. "Ivan Reitman approached us about doing the film version, which Universal was very excited about producing with him...until the film versions of *Super Mario Brothers*, *Double Dragon*, and *Street Fighter* all bombed in their initial theatrical run." Once that happened, Wilbur says, the studio cooled its enthusiasm until *Mortal Kombat* became a hit. A Doom film is slated

Street Fighter went the other route—game to movie.



Congo: a game based upon a movie based upon a book.



Will *Waterworld*'s bad publicity hurt the upcoming PC game?

to go into production soon.

To Each His Own

Does this mean movies and computer games should keep their distance? Not necessarily. Clearly, though, a new approach is needed.

"The Pagemaster was a game designed to sell a movie," explains Jon Richmond, president of Fox Interactive. "Now our philosophy is to take our existing library of films and television programs and use them as a source of inspiration for games that stand on their own. We've become more of a game company."

The test of Richmond's philosophy will be Fox's upcoming Die Hard Trilogy and Alien Trilogy games, due later this year. While based on the hit movie series, the games are designed to stand on their own. "Only the settings are the same," says Richmond. "The games do not make the mistake of just following the plotlines of the films, which usually don't translate very well."

Activision's Alan Gershfield, vice president of creative affairs, also stresses the importance of the game being independent of the movie. "Just about everything we develop in-house, including the Zork games, has been considered as a possibility for a movie," says Gershfield, who, like a lot of executives in new media, is a draftee from the world of film development and production. "But that doesn't mean it is automatically the direction we want to take a certain project."

Still, Activision has just inked a deal with Threshold Entertainment, maker of the *Mortal Kombat* movie, to license the Zork franchise. First up will be a television series. Then there's Activision's Spycraft: The Great Game (see reveiw, page 64). With its opening credits over a long tracking shot, recognizable actors, and dramatic music supporting the prologue, the first few minutes of Spycraft look much more like a movie than a game. Associate producer Michael Kirby confirms suspicions that a Spycraft feature film is a major possibility.

Hopefully, both game developers and movie makers have learned a thing or two. Simply rehashing a film experience on the PC screen isn't likely to impress anyone. And just putting popular game characters into a stock, by-the-numbers movie won't cut it, either.

Clearly, though, movies can be the inspiration for successful games. Just look at LucasArts' extraordinary success with the *Star Wars* franchise. And as games become more sophisticated, they are more likely to hold the seeds of worthwhile motion pictures, such as future productions of movies based on Wing Commander IV and Myst.

But if it's going to work, both movie makers and game developers will have to realize that the two media are more different than they originally thought. Creating a movie from a game or a game from a movie requires just as much creativity and originality as if the inspiration came directly from the blue spark of the imagination, rather than an existing property. ■

Peter Gardner is a screenwriter and "script doctor" in Los Angeles. He is currently working on The Kitchen Sink, *his original, racy television show about the secret goings-on at the world's most powerful software company.*

A Mickey Mouse Operation

While many studios struggle with the "multi" in multimedia, Walt Disney Interactive seems to be one of the few CD-ROM publishers having success with crossover titles.

And why not? Back in the 1930s, Uncle Walt helped pioneer merchandising by pasting a certain mouse's face on watches, clothes, and just about anything else he could find. Today, Disney Studios continues to use its characters and films as the basis for all sorts of spinoff products.

In addition to titles based on *Pocahontas* and *The Lion King,* and a *Toy Story* product under development, the company has recently released an interactive storybook titled Winnie the Pooh and the Honey Tree, featuring a character first presented more than 30 years ago.

Not surprisingly, Mickey's biggest competition among computer-savvy kids comes from Kermit and Miss Piggy. Activision's Muppet Treasure Island, slated at press time to be released concurrently with the movie, combines the popular characters with cutting-edge technology and beautifully drawn graphics. In perhaps the ultimate expression of multimedia, the disc comes from a book that became a movie that starred characters made famous on a television show! Beat that.

–PG

Buy the Book

The mixed-media phenomenon extends to the literary world, too. Book versions of such top-selling games as Myst, Doom, The 7th Guest, and Gadget are available at bookstores near you. Of course, don't expect these serializations to hit the *New York Times* Best Seller list. Most gamers will find it more exciting to play their favorites than merely read about them—especially since these novelizations rarely employ top-rank writers.

–PG

By Barry Brenesal

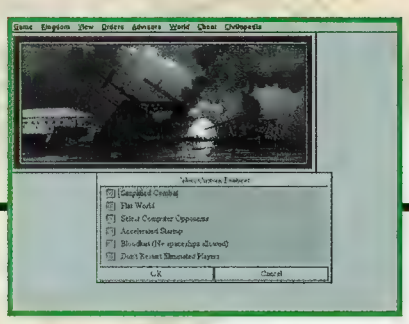
GUIDED TOUR

Civilization II

Rule the world or culture's museum display

The extensive mines in Civilization II are built by engineers who can actually transform the terrain using high-tech equipment. Modern times also bring modern methods to warfare, such as tanks and bombers (the latter are shadowed against the ground). Another new advancement in Civ II lets you combine multiple attacking units into a single devastating offensive. Be warned: Your clever opponents will try this as quickly as they can.

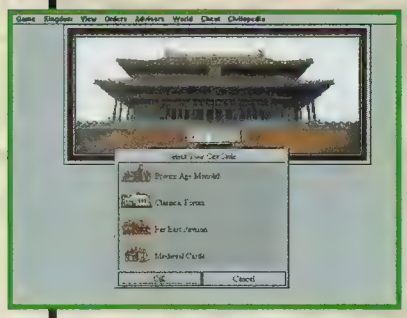
Civilization II lets you play as—or against—any of 21 different tribes. Each comes with a different level of aggression and method of development. For example, Stalin's Russians want to expand at all costs, while Hammurabi's Babylonians prefer a more balanced approach.



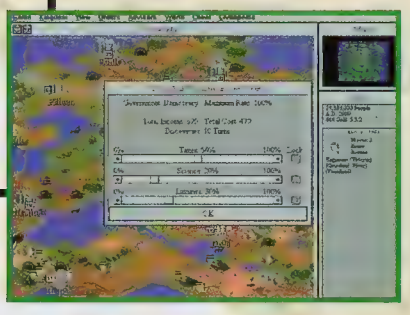
Civilization II boasts more customization options than its predecessor. For example, get rid of spaceship development (the peaceful ending) and strive for conquest. Or choose simplified combat, select your opponents, and decide whether a destroyed civilization gets a second chance elsewhere on the globe. Oh, you don't want a globe? There's a flatworld option, too.

become part of another in this super strategy sequel.

Barbarians roam the countryside, attacking your villages (and your opponents' villages, too). Control their aggression level on the Barbarian Activity screen. Will they be peaceful villagers, roving bands, restless tribes, or raging hordes? You can also pick a random setting.



Choose from a variety of city styles to customize your civilization. Also, select elements to configure your leader's appearance.



Taxes, science, and luxuries are the three areas to which you'll allocate your income. Change the game's settings to govern how quickly your civilization advances, how much money you can spend on new units, and how happy your people are.

Few strategy games have captured the imagination of players everywhere as much as Sid Meier's Civilization. A best-seller when MicroProse released it five years ago, Civ—as it's affectionately known by its fans—has remained one ever since. Now, after years of anticipation and speculation, the moment Civ addicts have been waiting for is nearly upon us: Behold Civilization II.

As with the original game, your goal is to build up a thriving community using resources from the surrounding lands to develop new units and skills. All the while, you must fend off encroachments from up to seven computer-driven or human opponents who are attempting to do the same thing. You win by either eliminating all other civilizations or successfully launching and maintaining a colony in space. Of course, if your civilization is eliminated, you lose.

Civilization II isn't just the original game with a Super VGA graphical makeover. It achieves what few game successors have been able to do: maintain the core product while adding enough new elements to create a new challenge. It offers new unit types, terrains, resources, facilities, advancements, and Wonders of the World, including pyramids that allow you to change your type of government at will. You can build superhighways, engage in counterespionage, and gain (or destroy) a reputation.

Numerous improvements should make Civ II even more addictive than its predecessor. For one, "dead-end" advances no longer exist: Every technical and social advancement leads to another. Where gains in Chivalry once took you nowhere, the Chivalrous route now leads to Mobile Warfare.

MicroProse has also overhauled the game's artificial intelligence. This time, computer opponents don't receive breaks on acquiring Wonders of the World, for example. Combat is more realistic, too, with hit points and firepower figured into the equation. And you now accumulate sailing experience with new advances, increasing your chances of a successful voyage.

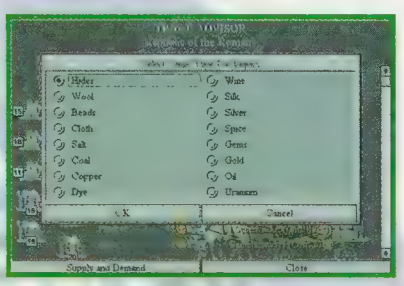
All of this makes Civilization II an endlessly renewable game of conquest and strategy. Pursue different objectives, set goals for your cities, betray or brownnose your adversaries. Win through peaceful expansion and development, or by savagely destroying everything in your path. Or do a little of both—it's up to you.

Look for the game to hit store shelves this month. In the meantime, you can get a leg up on the competition with *PC Entertainment*'s Guided Tour. (MicroProse; 800-879-7529; DOS CD; $49.99)

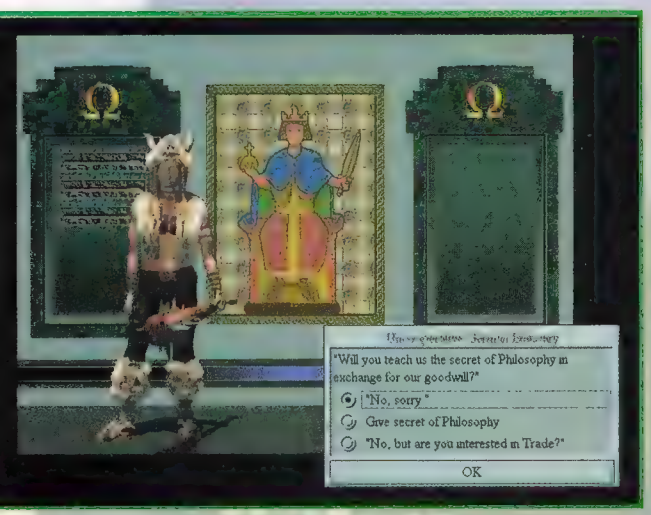
See MORE Online
http://www.pcentertainment.com

Rome isn't Kyoto in Civilization II: each culture looks distinctive. City growth within a culture is easy to spot, and much more attractive than Civ I's "numbers display" approach.

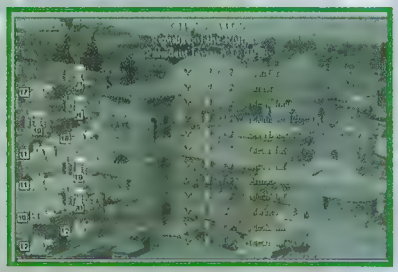
Check out the Top Five Cities dialogue box to learn the relative size of the world's most successful towns, plus their World Wonders and happiness ratings. The largest cities make the most lucrative trading partners.



You can trade a wide variety of goods in Civilization II, including gold, salt, and wine. Gather the items, store them, and compare prices with your competitors. Use your modern superhighways to deliver the goods on time.

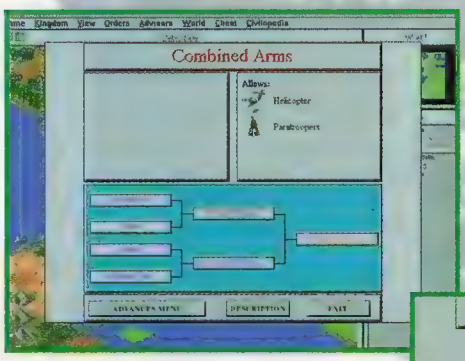

"Will you teach us the secret of Philosophy in exchange for our goodwill?"
"No, sorry."
Give secret of Philosophy
"No, but are you interested in Trade?"
OK

What do you do when the uncooperative German embassy offers to cease hostilities if you give them your hard-won development in philosophy? Agree, disagree, or offer an opportunity for trade instead.



The City Status box gives you an attractive, highly readable breakdown of all your cities' main factors: names, sizes, food/resource/money development, and items in production.

New advancements like Combined Arms let your individual forces attack as one unit. And graphical-based online help makes it much easier to see what each advance does and what earlier advancements are needed first.

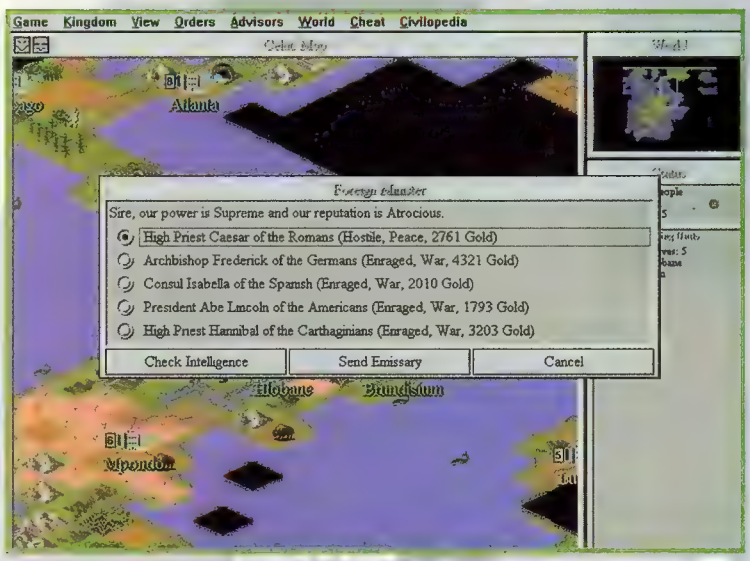


City maps supply a wealth of information, including troops present, mood of the population, food, trade, support, production, corruption, and specific items in demand and available for export.

Double-click an object to access the colorful, easy-to-follow Help Guide. It explains the advantages and disadvantages of each type of terrain—the poor crop yield of mountains, for instance, and their high defensive capabilities.

The Trade Advisor shows how much money you're sending into development, each city's tax revenue, and the cost of city upkeep. Use the Advisor to help reduce overproduction and spot potential economic problem areas.

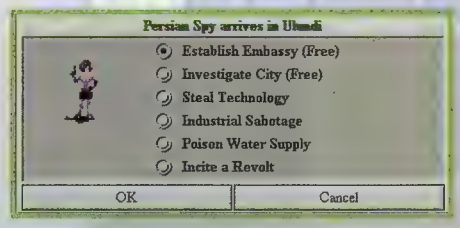
Consult your advisors individually or as a Town Council. Click on a Council member to hear and view his or her advice.


Game Kingdom View Orders Advisors World Cheat Civilopedia
Atlanta
Foreign Minister
Sire, our power is Supreme and our reputation is Atrocious.
High Priest Caesar of the Romans (Hostile, Peace, 2761 Gold)
Archbishop Frederick of the Germans (Enraged, War, 4321 Gold)
Consul Isabella of the Spanish (Enraged, War, 2010 Gold)
President Abe Lincoln of the Americans (Enraged, War, 1793 Gold)
High Priest Hannibal of the Carthaginians (Enraged, War, 3203 Gold)
Check Intelligence
Send Emissary
Cancel
Hlobane
Brundisium
Mpondos

Don't forget to check with your Foreign Minister to discover just how powerful you really are and what neighboring civilizations think of you. Remember, no matter how bad it gets, you can always send emissaries to your opponents and offer huge sums for an end to hostilities. They won't like you any better, but they won't turn down your gold, either.

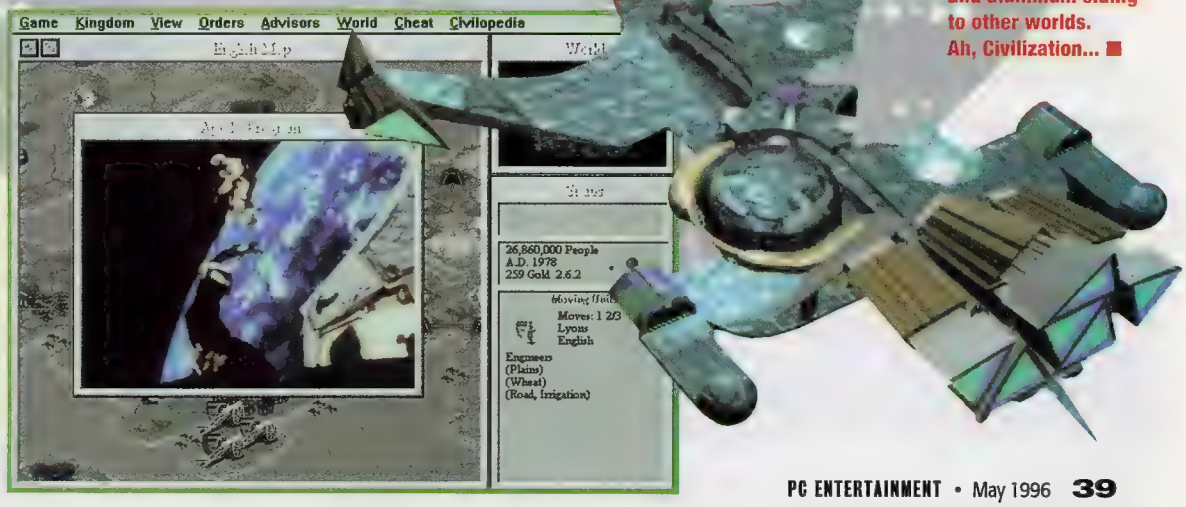
Get Civilized

- Good locations for your first several cities are essential to your ultimate success. Be sure to plant the first city near food resources.
- Place an early city near oil or coal, and have it produce the Pyramid Wonder after you gain the Masonry advancement. You'll want the Pyramid option early on so you can switch government types for military expansion or economic growth. (Pyramids also add granaries to all your cities.)
- Avoid breaking treaties if you can help it–your notoriety will spread. Stay on good terms with at least one computer-driven player for as long as possible.
- The new hit-point and firepower stats widen the gap between primitive and sophisticated weaponry. Don't count on your city walls and a couple of riflemen units to destroy an attacking battleship.
- Study the various forms of government. Most possess advantages that you can harness in different situations. Exploit all your possibilities, and don't simply go all-out for Democracy.
- Never falter on the path to scientific advancement. Once you fall behind, it's almost impossible to catch up. Consider trading advancements with your rivals, particularly those that are even further behind. *–BB*



Your spy arrives at Ulundi! Will you establish an embassy or investigate the city? Your other options are more nefarious: steal technology, commit industrial sabotage, poison the water supply, or incite a revolt. Don't get caught or your reputation will suffer.

Finally, you succeed. Launch that spaceship to spread the benefits of TV dinners and aluminum siding to other worlds. Ah, Civilization... ■



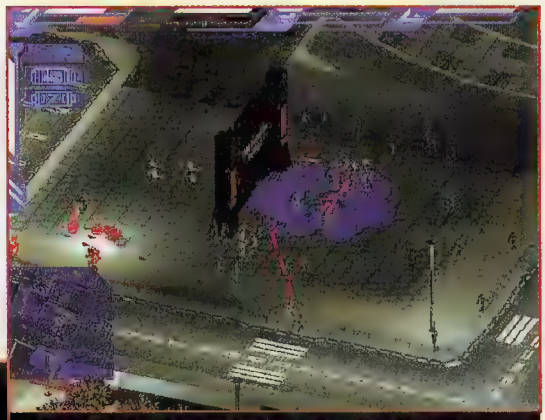
The Apollo Program is the final advancement in Civilization II. Once you've developed Apollo, you can begin constructing a ship that will carry your people off-planet.

DOS CD

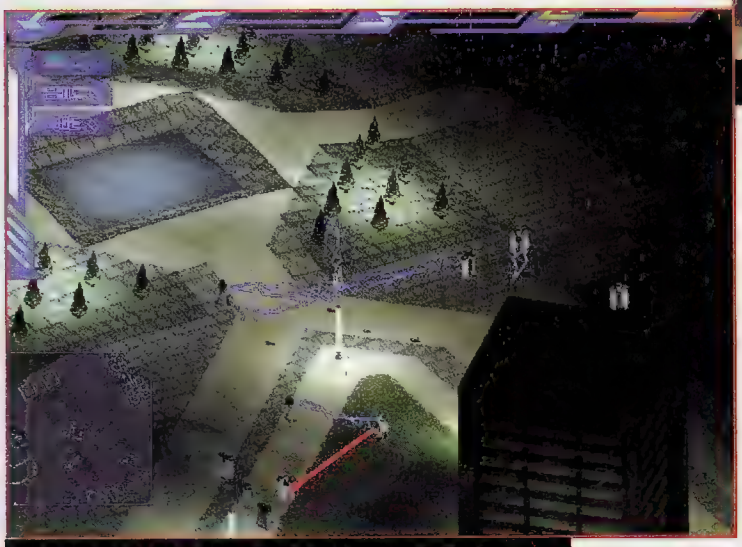
PREVIEW!

Syndicate Wars

By Fredric Paul



Gas attacks, flaming bodies...Hey, this is fun!



Rain and electrical weapons make a deadly combination.

Syndicate Wars
Electronic Arts
800-245-4525

Developer: Bullfrog
Platform: DOS CD, Sony PlayStation
Available: June

The war is over. The Syndicate controls all the territories. Time for everyone to go home, right?

Not quite. In the world of computer games, the end is only the beginning of the sequel. So Britain's Bullfrog is busy updating its successful Syndicate into Syndicate Wars, adding a rich plot, better graphics, and new game play elements.

Sure, as the game starts, the corporate Syndicate is in control, but that doesn't last long. It seems that a couple of other organizations have gotten their hands on the chip technology you use to keep the population happy and docile—loosening your grip on the territories. So your goal in Syndicate Wars is to tighten the reins.

Of course, it's never that simple. You see, the three organizations troubling the Syndicate—the cultish Zealots, the anarchistic bikers known as the Outcasts, and the Corporation Executives—have their own agendas and their own weapons and tactics. The Outcasts prefer brute force, for example, while the Zealots use mind control to achieve their ends. To make things even more interesting, you can choose to play as a corporate exec, cult leader, or biker chieftain. Since each group has its own strengths and weaknesses, this option should add some replay value.

Whichever side you choose, you'll have access to an awesome array of new weapons and vehicles. Hovercraft swoop down through the city, and you can actually enter and control cars and boats. Bullfrog project leader Mike Diskett says the company is even considering adding tanks to the mix, with which players could go just about anywhere.

You control the same four agents as in the original game—and they're still tiny on the screen—but you can now choose to control them directly. According to Diskett, this ability is a byproduct of development for the PlayStation version of Syndicate Wars, scheduled for simultaneous release with the PC game next month. Because of the system's gamepad, the PlayStation version required more of an arcade feel, and Bullfrog chose to carry that to the PC.

Syndicate Wars also retains its dark, *Blade Runner*–style vision of the future, but the new missions won't be as linear. Each mission will take you to four or five three-dimensional maps, for example. As you approach the end of the game, you'll encounter lunar and space-based levels as well.

Pilot new vehicles along newly curving streets.

Other new elements include curved and angled roads, rivers, and even rain, which looks great and expands the electrical charge surrounding buildings—a nice touch when using certain electrical weapons.

In addition, much of the game's world is now destroyable: You can blow up buildings and other paraphernalia with extremely satisfying explosions. If *PC Entertainment*'s early look at Syndicate Wars in Bullfrog's bustling yet bucolic offices outside London are any indication, the entire game should be equally satisfying.

Commercial Syndicates

Following on the lead of product placement in parent company Electronic Arts' sports games, Bullfrog has struck a deal to plug a new direct-to-video release in Syndicate Wars. A billboard in the city shows a video trailer for *Akira: Ghost in the Shell*, a new Japanese anime film. In addition, the movie—which may or may not ship in the States—will carry an ad for the game. —*FP*

Species are disappearing all over the UNIVERSE.

No one is safe...

You will be next!

"...revolutionary game design, it may indeed knock fighting fans into another universe of apocalyptic action." — Strategy Plus

- By far, the largest, most detailed foes ever seen in a fighting game. Up to 3/4 of the screen's height.
- Innovative screen panning, zooming, real-time scaling, shadows, and special F/X.
- Interactive, animated, and detailed backgrounds that often hide special dangers.
- 8 characters, 2 champions and a nasty surprise.
- Special moves, combos, resurrections, & humiliations.
- Blood sucking, claw slashing, tail whipping, karate kicking, fist ramming, body slamming, blood spurting action — need we say more?

XENOPHAGE

Alien Bloodsport

FormGen INCORPORATED

Developed by Argo Games
Published by Apogee Software, Ltd.
Distributed by FormGen

ARGO 4D GAMES

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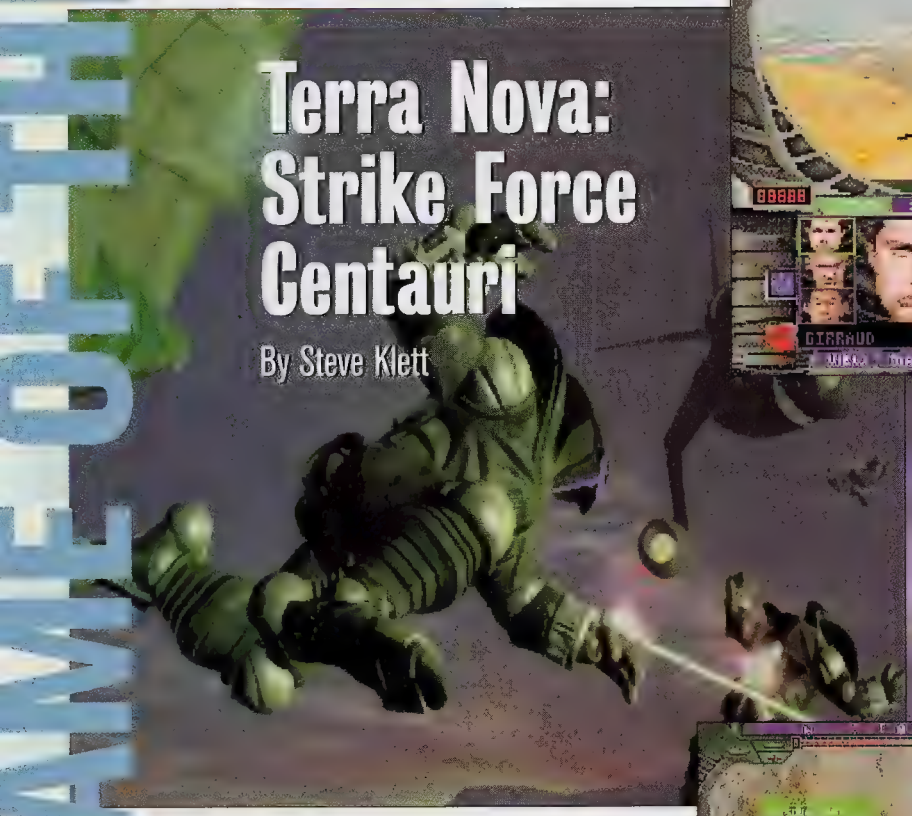
Terra Nova: Strike Force Centauri

By Steve Klett



You won't get far in this game without letting your squadmates do some of the work.

The heads-up display in your PBA suit holds a wealth of information, including the mission map.

Thunder crashes ominously overhead as fingers of lightning dance down to earth, briefly illuminating distant hilltops. A steady downpour of rain creates thick mud that makes movement slow and difficult.

Cresting a small hill, I pick out four—no, make that five—red dots on the radar scope inside my helmet. Looks like the pirates have set an ambush about 75 meters in front of our position. Damn! How'd they know we were coming?

I order half the squad to circle around behind the enemy in a flanking maneuver, and tell the rest to follow me. After working slowly forward for 20 yards or so, I get a lock on one of the pirates with my grenade launcher. The squad fires as one. The pirates never knew what hit them.

Welcome to Terra Nova, a futuristic, first-person combat game from Looking Glass Technologies, maker of Flight Unlimited.

You are Nikola Ap Io, entrusted with the leadership of an elite powered-infantry squadron known as Strike Force Centauri (SFC). Protected by high-tech Powered Battle Armor (PBA) suits that seem lifted from Robert Heinlein's classic *Starship Troopers* novel, the SFC is charged with defending the Centauri Clans from roving bands of rogue pirates.

The enemy is ruthless—you know because you watched them murder your parents when you were a small boy. But you feel like nothing can touch you inside the safety of your PBA, which can be outfitted with a variety of lethal weapons and protective devices. Once suited up, you resemble a walking tank, capable of destroying nearly everything in your path while taking a lot of punishment. You'll get to choose your own weaponry and support personnel for most of your missions, which range from simple search-and-destroy strikes to full-bore assaults on enemy fortifications.

But, then again, the pirates wear PBA suits, too. And as you progress through the game, you'll notice that their weapons get better and better. There's more going on here than you thought, and it's up to you to find out what.

At least you won't be alone. Like you, your squadmates (which include your older brother) are the best—the finest warriors from all of Centauri's clans. However, also like you, each member has his or her own personal ghosts to deal with. There may even be a traitor among you. It's up to you to find out—I don't want to give away too much of the story.

And it's really the compelling story that separates Terra Nova from similar titles like Activision's MechWarrior 2, which, while an excellent game, has essentially no story at all. Video sequences spread throughout Terra Nova's 37 missions advance the plot and reveal your squadmates' secrets. Though the sequences, are, for the most part, badly overacted, they do draw you into the game and make you want to finish it.

Terra Nova: Strike Force Centauri

Virgin Interactive Entertainment
800-874-4607

Developer: Looking Glass Technologies
Platform: DOS CD
Requires: 60MHz Pentium, 8MB RAM, DOS 5.0, Super VGA, double-speed CD-ROM drive, sound card
Street Price: $59.95

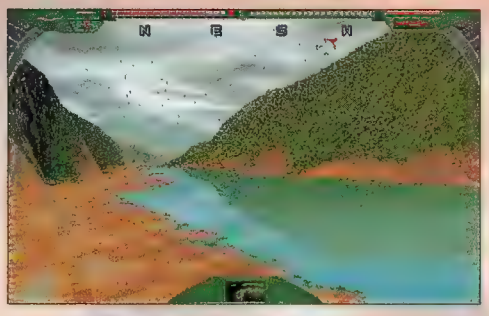
GAME PLAY:	★ ★ ★ ★ 1/2
GETTING STARTED:	★ ★ ★ ★ ★
GRAPHICS:	★ ★ ★ 1/2
SOUND CHECK:	★ ★ ★ ★
VALUE:	★ ★ ★ ★ 1/2

Terra Nova provides the most immersive combat experience around.

Your PBA gives you eyes in the back of your head.

Combat may not win any art awards, but it's furious.

You'll encounter Hegemony tanks on more than one occasion.



Swirling clouds, falling rain, and reflective water are some of Terra Nova's nice touches.

Fortunately, a brilliantly simple user interface helps make that goal possible. You view all the action through the heads-up display (HUD) inside the helmet of your PBA. By clicking on a few icons on the screen, you can switch weapons in an instant, check on your status or the situation of your squadmates, issue a variety of orders, call up the mission map, or magnify your view.

Use the keyboard cursor keys to direct your movement and the numeric keypad to look up, down, left, and right. The mouse cursor controls targeting enemies and firing. It isn't easy to move, turn your head, and fire at the same time, but considering the complexity of your PBA and its weaponry, I can't imagine a simpler control system.

You'll be thankful for that simplicity, because you'll have your hands full assessing mission conditions, enemy strengths, and attack strategies—all in real time. Terra Nova is a thinking man's action game. For example, on a mission to rendezvous with a medical convoy, you may encounter multiple sets of enemy troops at different locations on the map. To be successful, you may have to order one of your men to blow up a bridge to cut off one enemy group while you lead the rest of your squad against the main force.

It's also up to you to choose who will go with you on a particular mission. Before each mission you get a video briefing of your drop location, target, pickup point, and all relevant intelligence information on the target. You also get a default squad that you can alter to your liking.

Your fellow SFC members have specialties such as Electronics, Repair, Scout, Demolitions, and Weapons. If the mission is a hot-and-heavy assault in which you must take out many enemies fast, load your squad with Weapons specialists and a Repair technician, the Centauri version of a medic. If you need to take out a major bridge or weapon, bring along an extra Demolitions specialist.

You can also choose what PBA each squad member will wear, as well as his weapons load. For heavy firefights, everyone should have the Heavy PBA, which takes a lot of punishment but slows you down. For a recon mission, go with the Scout suit, which is light and hard to detect. Weapons include such staples as pulse cannons and grenade and missile launchers. New technology—both offensive and defensive—becomes available to you as you progress through the missions. For example, about halfway through the game you'll gain access to an Autodoc gadget that lets you endure more damage in a firefight without having to evacuate.

Despite all these options, visually, the game may leave you initially disappointed. The highest resolution Looking Glass provides during game play is 320-by-400, far below the 640-by-480 that MechWarrior fans are used to. Enemy troops and vehicles look blocky and weapon-fire effects are largely uninspiring (though the explosions are nice). However, Terra Nova's worlds are extremely detailed. Ponds reflect the sky, clouds swirl overhead, rain falls, thunder crashes, and you can visit every hilltop you see in every direction you look.

Awesome sound effects also help offset the graphical shortcomings. This may be the game that makes you run out and get a new sound card and speakers. Audio effects such as drop ships taking off and landing, artillery barrages, and thunderstorms will blow you away. The addition of a scenario editor that lets you create your own missions is another nice touch.

The worst thing I can say about Terra Nova is that there's no network play. For that you'll have to wait for a sequel. Until then, if you've been looking for a good first-person, real-time combat simulator, Terra Nova can't be beat. Period.

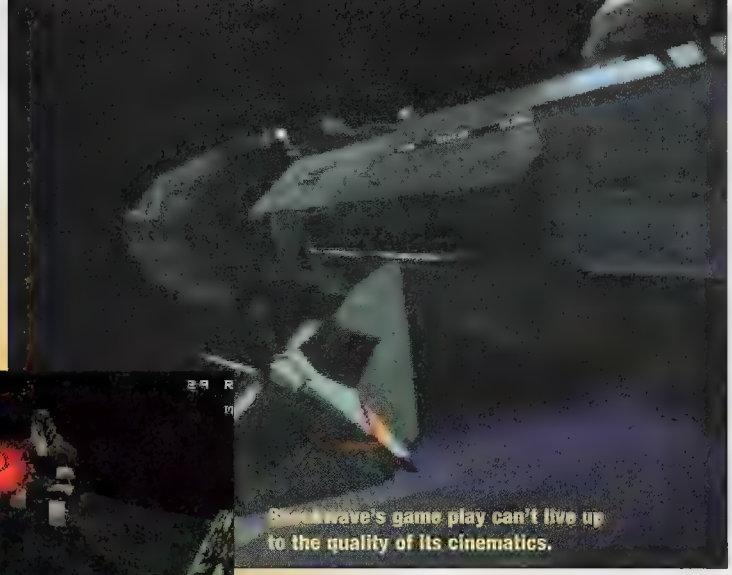
TIPS

- **Pay close attention to your mission briefings; vital clues are often glossed over.**
- **If you have trouble with a mission, try a different mix of specialists, weapons, and suits. If that doesn't work, you can always drop the skill level by jumping into the options screen before you launch the mission.**
- **Mission 28 requires you to protect both a convoy of trucks and a shuttle base, and the action is hot as soon as you land. Splitting up the squad and effective use of the ASF Auto Turrets are the keys to success.**
- **Your squadmates occasionally seem to be hard of hearing—particularly when you order them to retreat. If they won't retreat, ordering them to follow you usually works.**
- **Enemy drones are tough to hit because they require you to move and fire while moving your head. Leave them to your squadmates whenever possible.**
- **The Ionic Fusion rifle is the best all-around weapon.**

ACTION

Shockwave Assault

By Peter Olafson



Shockwave's game play can't live up to the quality of its cinematics.

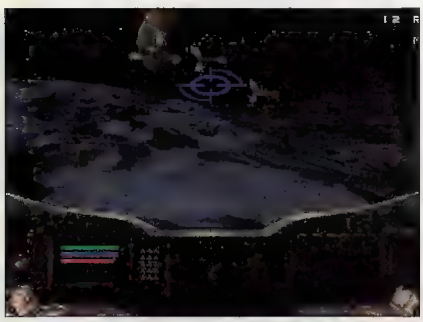
You'll have to shoot, shoot, and shoot some more to save Earth.

Time, not aliens, is the real enemy. Back in 1994, Electronic Arts' shoot-em-'up Shockwave: Invasion Earth and its data-disc sequel, Operation JumpGate, made quite a splash on the 3DO. Crisp, full-motion video sequences and textured 3-D landscapes were heaven for blasterheads.

Now, EA has ported both games to the PC and Macintosh platforms and bundled them together under the wrapper of Shockwave Assault. Unfortunately, this one-time splash in a small 3DO pond is just a drop in the computer entertainment ocean.

It's a *War of the Worlds* scenario. In the original game, aliens have landed on Earth (in JumpGate, the solar system is at risk), and you, as a fighter pilot launching from an orbiting aircraft carrier, have to destroy every last one of 'em. To do this, you must fight your way through various hotspots all over the world in a series of multi-segment levels.

The basic game isn't bad. Your weapons need to be recharged occasionally, the terrain sometimes turns hilly, and things get especially interesting when you fly over Las Vegas at night, where enemies are mere flickers of movement on the horizon.



Zoom over hilly terrain at high speeds.

However, the limitations of the game stand out more clearly on the computer—where Shockwave competes with winners like Terminal Velocity—than they did on console systems.

For example, you're locked into a narrow band of terrain for most of the game. Leave this killing field, even momentarily, and you get slammed around by invisible enemies without an opportunity to defend yourself. Why have a "3-D environment" if you're not going to make full use of it?

And, to be honest, the people you take orders from during the game bugged me. For instance, when I blew up the initial batch of aliens, my boss came on the comm and snarled, "This isn't a game!" Later, after I crashed, she was at me again, yelling "You must complete your mission!" as if I was somehow trying to weasel out of it. Not exactly a morale builder.

The good news is that Shockwave's Mac version is very cleanly put together—real plug-and-play stuff. Even with the game play limitations mentioned above, it's a pretty entertaining shooter. (It helps that there's nothing else quite like it on this platform.)

On the other hand, the Windows 95 version (sold separately) gave me headaches. It locked up the machine a few times. It paused the action when loading video transmissions. Walls of surface structures occasionally vanished. The nice-looking setup screen is rich in eye candy but sadly short on information. And it was hard to control my aircraft with a joystick.

You have no choice: Eject, and ditch this baby—unless you're playing on a Mac.

TIPS

- Nail the small, fishlike enemies at a distance. If they get close, they can be hard to shake.
- Never pass up an opportunity to recharge your craft, and never stray outside the boundaries of your flight zone.
- In the Vegas sequence, with enemies only semi-visible, your targeter allows you to fire blind.

Shockwave Assault
Electronic Arts
800-245-4525

Platform: Win 95 CD, Mac CD
Requires: PC: 486/66, 8MB RAM, Win 95, Super VGA, double-speed CD-ROM drive; Mac: PowerPC or 68040 processor, 8MB RAM, System 7.0, 256-color display, double-speed CD-ROM drive
List Price: Win 95 CD, $54.95; Mac CD, $49.95

Win 95	
GAME PLAY:	★ ★
GETTING STARTED:	★ ★
GRAPHICS:	★ ★ ★
SOUND CHECK:	★ ★ ★
VALUE:	★ ★

Shockwave crashes and burns on the PC.

Mac	
GAME PLAY:	★ ★ ★
GETTING STARTED:	★ ★ ★
GRAPHICS:	★ ★ ★
SOUND CHECK:	★ ★ 1/2
VALUE:	★ ★ ★

An entertaining, if dated, Mac shooter.

You blasted your way through an onslaught of undead marines and hell-spawned hordes in Doom, Ultimate Doom and Doom II. Now you can retire, right? Wrong.

Seems flesh-eating mutants have the mortality rate of a cockroach and are alive and kicking in Final Doom – the last of the legendary Doom products. It's two new 32-level episodes complete with new stories (Evilution & The Plutonia Experiment), new frighteningly realistic graphics and new pulse-pounding music. It's time to finish what you started.

OLD SOLDIERS NEVER DIE,
THEY JUST TURN INTO
BLOODTHIRSTY
MUTANT ZOMBIES

5.56 NM

FINAL DOOM

End of story.

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id Software

GT™

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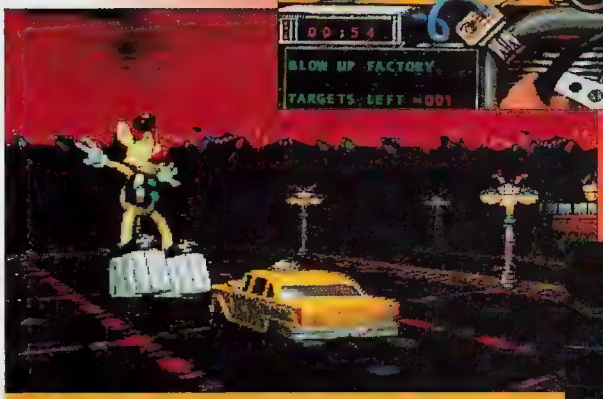
ACTION

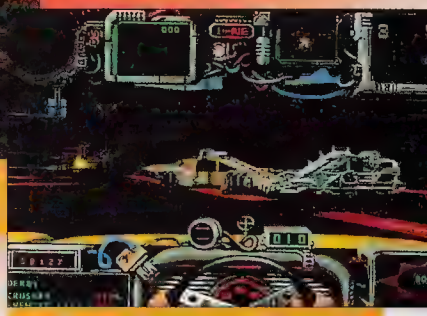
Road Warrior

By Bill Meyer

Decent graphics can't overcome repetitive game play.



This mouse in OmniLand want to put a stop to your joyride.



Road Warrior plops you in a crash palace several times.

Road Warrior picks up where Quarantine left off. You play Drake Edgewater, cabby/assassin for hire, who has just finished exterminating OmniCorp and removing its Hydergine 344 plant from the prison city of Kemo.

Now you have to try and make it on the outside. It won't be easy, because Torva Yul, president of OmniCorp, has orders out for your capture and execution for crimes against the state. To escape, you'll have to battle your way through 13 different locations, including Kreighton city, home of OmniCorp's headquarters. Doesn't sound so bad, does it?

Yet, after finishing Road Warrior and reading all the truly inane mission briefings before each joyride, one wonders if the script was written on cocktail napkins during a beery night on the town. Filled with ugly stereotypes, mindless humor, and ridiculous setups, this attempt at lampooning political correctness mostly insults your intelligence.

In terms of game play, Road Warrior is a dumbed-down Quarantine—basically Doom in a taxi. You follow your cab's map and waypoint indicator in search of passengers on each locale's crowded streets. Each fare gives you a mission to carry out. This time, though, GameTek opted for a surfeit of short missions rather than a handful of long, difficult ones.

In Quarantine, you had to consider repair docks and weapon depots if you wanted to win. But in Road Warrior you no longer have to fix your vehicle or upgrade its weapons, armor, and engine. Finish a mission and make it to the next waypoint and your vehicle is automatically repaired and refreshed, eliminating a lot of strategy from the game. Also, the reason for hacking has been removed. You no longer need to earn cash to do well in the game, which is strange, considering you're still driving a cab.

Each of Road Warrior's 13 locales has about 5 to 10 missions, which sounds pretty good. However, you'll find yourself repeating very similar actions, such as blowing up buildings and vehicles. In addition, original missions are often too ridiculous to take seriously. For instance, one mission requires you to destroy a cabby carrying an OmniCorp worker who banned wet T-shirt contests. Consistently juvenile and filled with an idiotic array of characters—under-age drunks, transvestites, and drug-addicted nurses—the missions just aren't any fun.

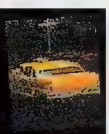
The game's Super VGA graphics outshine those in Quarantine. But don't expect 3-D cut scenes or videos to move the story along. Instead, Road Warrior uses sequences of static, comic book–style screens to page you through the story. The art itself is pretty cool, but forget voiceovers for the characters. Even the music's admittedly novel mix of Kentucky-fried floor stomps and warmed-over '80s metal gets a bit repetitive.

If you love running over people, Road Warrior will keep you rolling. Most gamers, though, probably won't want to get behind this wheel.

TIPS

- If you have to take out a platoon of OmniCorp police, don't bother shooting them. Run them over; it won't damage your cab.
- During each mission briefing, be sure to survey the map. It shows alternate routes to your destination that aren't crawling with cops.
- Don't waste time trying to destroy every mobile cannon or enemy vehicle. Get down to business so the mission clock doesn't expire.
- Once flames leap from an enemy car, stop firing to save ammo. These sparks foreshadow its weaving out of control and exploding.
- On the open road in the desert, drive just outside the path. You'll avoid head-on collisions and still see where you need to go.
- When driving using the keyboard, it's best to take it easy on the gas. Tap the arrow keys and let yourself glide for better control.

Road Warrior
GameTek
800-426-3835



Platform: DOS CD
Requires: 486/33, 8MB RAM, Super VGA, double-speed CD-ROM drive, sound card
List Price: $40

GAME PLAY: ★ ★
GETTING STARTED: ★ ★ ★
GRAPHICS: ★ ★ ★
SOUND CHECK: ★ ★ ★
VALUE: ★ ★

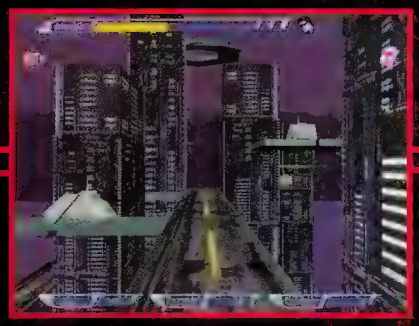
Don't be fooled: This silly, dumbed-down rehash of Quarantine has nothing to do with Mad Max.

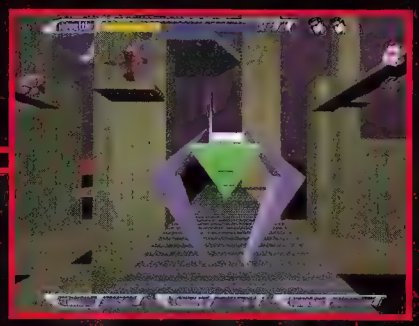
Dying in your sleep is no longer the most peaceful way to go...

SOULTRAP™

Awake to your worst nightmare as Soultrap takes you on a terrifying journey into the darkest recesses of the human mind. You'll step inside the twisted dreams of Malcom West, a man driven to the edge of madness, as he attempts to free himself from the tightening grip of insanity. Let your mind free fall into a series of deranged 3D nightmares and terrifying environments. Ascend to the top of towering skyscrapers to stare down into the abyss that was once your sanity. Explore hauntingly surreal dreamworlds and encounter deadly foes that seek to use your fears against you. With each new level you'll fall deeper and deeper into your addiction, and slowly lose yourself in the spiralling madness of fears that is this terrifying Soultrap.

- Go "inside" the game with the first person perspective or step outside the madness with the unique external camera.
- Stereo sound and dazzling effects bring all the reality-altering, hauntingly surreal action to life!
- You'll face a stunning range of deadly opponents as you battle your way through detailed 3D environments that are always in motion.
- Shifting platforms and hidden dangers await you in a constantly changing domain.





Each level of the game consists of a series of platforms which constantly move and twist in 3D space.

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Hyper 3-D Pinball

By Joy J. Ma

Launch that spaceship with the right hits.

It looks good and it plays even better. The "it" in question is Virgin's Hyper 3-D Pinball, and the game manages to shine in an increasingly competitive genre. Hyper 3-D marries the best features of pinball and the computer to satisfy advanced gamers and novices alike.

You can play the game in three resolutions—3D VGA and 2D or 3D Super VGA. Players who are used to scrolling tables can opt for a scrolling view of the action, while a full-screen, isometric view is available for those who prefer to see the full table at all times. In addition to the great graphics, clever animations pop up to show the path of the ball when it disappears from the table, as when it barrels into the subway in Roadking USA.

Hyper 3-D's game play leaves little room for complaints. The six tables—Fun Fair, Star Quest 2049, The Monster, The Gangster, Roadking USA, and Myst & Magic—will test all your pinball savvy. The first two are more suitable for beginners and make it easy to rack up impressive scores. Fun Fair simulates the frenetic world of a circus, right down to the merry-go-round and a large clown head grinning at you from the top of the table. My favorite table, Star Quest 2049, offers a nice blend of difficulty and simplicity.

The rest of the tables are a tad more complex. The Gangster and The Monster take a tongue-in-cheek approach and are packed with extra features that deliver huge bonuses for skillful play. If you're big on Americana, Roadking USA is just the ticket: It comes packed with highway sights and sounds. The last table, Myst & Magic, looks deceptively simple, but is the most challenging game of all. The drain is enormous, and you have to really smack the flippers to score any points. Most tables have a save-ball feature that shoots out a second ball when you lose the first one without scoring any points.

We played the game with ThrustMaster's Wizzard Pinball Controller (see sidebar), which adds a realistic arcade feel to the action, including real tilts. But don't worry—Hyper 3-D also plays smoothly with keyboard controls.

In keeping with its broad appeal, the game's manual includes tips for beginning, intermediate, and expert players. If you're in the market for a good computer pinball game, Hyper 3-D is matched only by Sierra On-Line's 3-D Ultra Pinball (see review, January 1996, page 78), which sacrifices a bit of arcade frenzy for a more computerized experience.

Hyper 3-D Pinball

Virgin Interactive Entertainment
800-874-4607

Platform: DOS CD
Requires: 486DX/33, 8MB RAM, DOS 5.0, double-speed CD-ROM drive, sound card
List Price: $39.95

GAME PLAY:	★ ★ ★ ★ 1/2
GETTING STARTED:	★ ★ ★ ★ 1/2
GRAPHICS:	★ ★ ★ ★ 1/2
SOUND CHECK:	★ ★ ★ 1/2
VALUE:	★ ★ ★ ★ 1/2

Hyper 3-D Pinball's good looks and great game play make it a winner.

Wizzard Pinball Controller

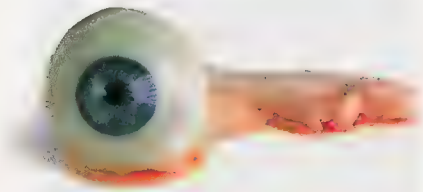
Finally, smacking the keyboard really helps you win at computer pinball.

How? With ThrustMaster's **Wizzard Pinball Controller**, a cool new peripheral for pinball fans. The two bright-blue, pear-shaped units attach to the side of your keyboard with the help of velcro. A red "flipper" button on the side of each unit re-creates the feel of a real table, while a built-in potentiometer simulates a hip nudge when you rock your keyboard. (Don't overdo it or you'll "tilt" the table.) The device is even sensitive to the force with which you hit the buttons.

The Wizzard attaches to the joystick port and comes bundled with Royal Flush Pinball, but it's also supported by Hyper 3-D Pinball, Pro-Pinball, and Extreme Pinball. It may look kind of silly, but it plays great—and you can't misplace it on your desktop. (ThrustMaster; 503-639-3200; $39.95)

Platform: PC
Rating: ★★★ 1/2

Admittedly, without SimulEyes™ VR, PC gaming only requires half the equipment.



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http://www.stereographics.com

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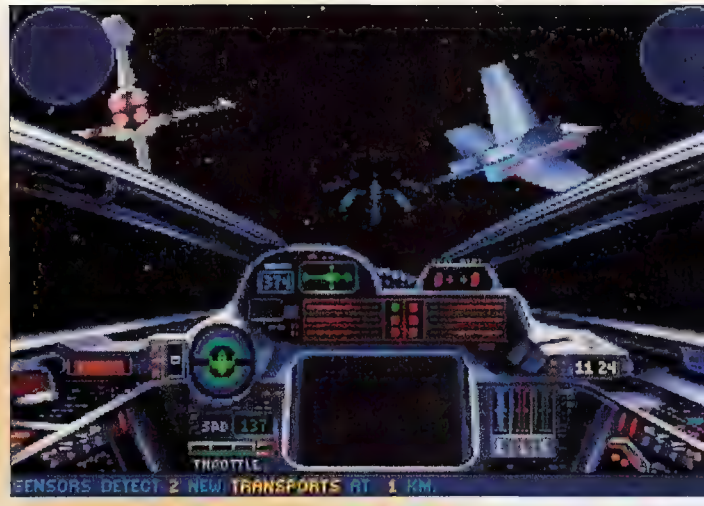
X-Wing Collector's CD



Finally, Mac owners can help the Rebels fight the Empire.

The Force is evidently with the Macintosh. The X-Wing Collector's CD has crossed platforms, and there will be shooting among Apple's stars tonight.

In case you've been exploring the ocean floor for the last 25 years, X-Wing takes its name from the rebel fighter craft in George Lucas' *Star Wars* universe. This space-fight sim casts you as a rookie fighter pilot and puts the whole X-Wing world—the original game and its three add-ons—in your hands on a single CD-ROM.

X-Wing Collector's CD
LucasArts Entertainment
800-985-8227

Platform: Mac CD
Requires: 25MHz '040 processor, 8MB RAM, System 7.1, 256-color 13-inch display, double-speed CD-ROM drive
List Price: $59.95

GAME PLAY:	★ ★ ★ 1/2
GETTING STARTED:	★ ★ ★ ★
GRAPHICS:	★ ★ ★ 1/2
SOUND CHECK:	★ ★ ★ 1/2
VALUE:	★ ★ ★ 1/2

Expect those hands to get moist. The Mac version is basically the X-Wing we've come to know and love, made just a little bit better than 1992's PC original. It still flies with exquisite smoothness. It's still pleasantly difficult (even the X-Wing croquet practiced in the training mazes is a challenge). And the controls are still just slightly elusive. If anything, it looks better than ever before. You'll spend a long, lovely time fighting the good fight against the Empire.

Now for the downside: The keyboard controls are turgid, and the key combo that allows your fighter to rotate on its axis simply doesn't work. (A recent patch repairs this flaw, but the game's much easier to play with a joystick.) Also, the game is four years old, and some of its in-flight graphics and story-telling techniques seem a bit creaky when compared to, say, Wing Commander III. It's not as flashy a Mac conversion as Dark Forces, either, whose fluidity and definition made it strikingly superior to the already-excellent DOS original.

But, hey, it's X-Wing. If you're a Mac loyalist, what are you waiting for?

—Peter Olafson

C&C: The Covert Operations

There's no doubt about it: Westwood Studios' Command & Conquer has won the hearts and wallets of wargamers everywhere.

Well, C&C fanatics can rejoice, 'cause the first of several new C&C products is hitting the streets in the form of a mission add-on disc for the original game. Dubbed The Covert Operations, the disc sports 15 new "expert-level" missions, eight for the Global Defense Initiative (the good guys) and seven for the Brotherhood of Nod (the bad guys). You also get ten new maps for head-to-head and network play. Other than that, it's pretty much the same C&C you know and love.

Those Nod nasties sure know how to set up a good ambush.

The missions achieve their goal of providing a significantly tougher challenge than those in the original game. In fact, the programmers claim even *they* can't beat some of them. Whichever side you choose, you'll find the enemy mounting larger, more frequent, and more aggressive attacks against you. Fail to build your base quick enough and you'll be overrun.

The new missions are nicely varied. Cloak & Dagger, for example, challenges you to recover a stolen Mobile Command Vehicle from vastly superior GDI forces, using just a Stealth tank. In Twist Of Fate, you must recapture a small recon outpost using a convoy of reinforcements. Trouble is, that convoy is ambushed and wiped out at the start of the mission.

Given these strengths, I was disappointed in the way the missions are presented—in standalone fashion with no story to thread them together. Also, while some of the missions take several hours to complete, you'll finish others in as little as 20 minutes.

If you breezed through Command & Conquer, give The Covert Operations a try. At the very least it will tide you over 'til the next full C&C title, Red Alert, comes out this fall.

—Anthony Lukban

The Covert Operations
Virgin Interactive Entertainment
800-874-4607

Developer: Westwood Studios
Platform: DOS/Win 95 CD
Requires: 486/66, 8MB RAM, DOS 5.0, double-speed CD-ROM drive, Command & Conquer
List Price: $19.95

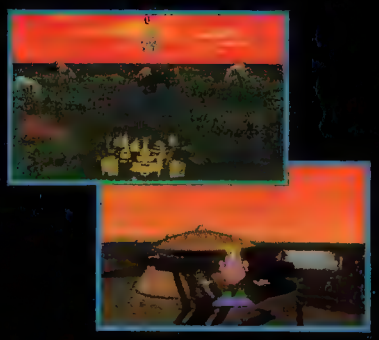
GAME PLAY:	★ ★ ★ 1/2
GETTING STARTED:	★ ★ ★ ★
GRAPHICS:	★ ★ ★
SOUND CHECK:	★ ★ ★ ★
VALUE:	★ ★ ★ 1/2

One intergalactic space surfer,

one totally thrash invasion fleet,

one killer babe . . .

. . . Cool!



SPACE DUDE

PUBLISHED BY

FORMGEN

CATCH THE WAVE APRIL 1ST

Extreme Rise of the Triad

Caught in a technological rift between Wolfenstein 3-D (in which it has its roots) and Doom (which preceded it by a year), Rise of the Triad has never quite gotten its due. Extreme Rise of the Triad—an add-on disc for the original ROTT: Dark War—is an opportunity to rediscover this exotic 3-D shoot-'em-up.

In contrast to Doom, with its distinct sense of place, a visit to ROTT is a little like wandering onto the set of a futuristic TV show-cum-obstacle course. Extreme doesn't change that. The towering architecture, the trampoline pads that bounce the player to high, out-of-the way spots, the 90-degree corners, the steely circular platforms in lieu of stairs, the digitized enemies (Apogee staffers), and interesting killing machines are preserved, sometimes expanded.

Extreme ROTT revitalizes the original game.

Otherwise, the 40-plus new levels are much like the 30 or so in the original game—only somewhat harder and more puzzle-oriented. Playing one rung beneath the hardest difficulty level, I found myself running back and forth, getting slaughtered regularly by guys dressed like Friar Tuck and needing to save every other step. Hang in there, though, because you'll find bigger and easier levels later in the game.

The only possible hitch is that the add-on says you need version 1.3 of the original ROTT. Luckily, even though online docs indicate you have to get the patches from Apogee, they're on the Extreme CD. So save yourself the call—you've already got 'em. And you can bet that, sooner or later, Extreme ROTT will have you.

—Peter Olafson

Extreme Rise Of the Triad
FormGen
888-367-6436

Developer: Apogee
Platform: DOS CD
Requires: 386, 4MB RAM, VGA, ROTT: Dark War
List Price: $39.95

GAME PLAY:	★ ★ ★ ★
GETTING STARTED:	★ ★ ★
GRAPHICS:	★ ★ ★ ★
SOUND CHECK:	★ ★ ★ ★
VALUE:	★ ★ ★ ★

Master Levels of Doom II

Dear Doom,

It's over.

I got your newest disc, Master Levels of Doom II, and I knew right away there was something wrong. I was going through the motions. The old feelings just weren't there.

Understand: There's nothing wrong with the 20 Doom II levels (from six noted designers) included on this CD. There are examples of Doom's classic symmetry; of its rich chaos and pregnant emptiness; of the old tricks and traps. The levels are tight, they are clean, and they work well together.

Master Levels offers more of a good thing, but nothing new.

But I didn't see anything really new here—nothing as vast as Apocalypse, nothing as distinctive as Aliens: The Total Conversion, nothing as silly as YakWorld, and nothing as utterly rigorous as Artifact. While I was frequently challenged, I was never really surprised. The designers don't seem to have taken chances, and chances are what is needed to breathe some life back into this relationship. Perhaps we'll see that in Final Doom (slated to ship in March).

Don't get me wrong, Doom: I'm grateful for the effort and the passion you've invested here. For the Doom-It shell, which elegantly eliminates the command line from the Doominverse; for the new version of DWANGO client for modem play; and, of course, for Maximum Doom, a compilation of some 1,800 hand-picked WAD files that contain more than 3,000 levels for Doom and Doom II.

But it's too late. People have been compiling your levels on CD-ROM almost since there were levels to compile.

So I'm sorry, but it's over. It was a deathmatch made in heaven, but it's time to get on with our lives. Don't try to call my modem line. Don't teleport in unannounced.

I'm sorry. I wasn't going to mention this, Doom, but I'd rather you hear it from me first: I've taken up with another game.

Actually, you may know it. It goes by the name "Duke."

–Peter Olafson

Master Levels of Doom II
GT Interactive
800-434-2637

Platform: DOS CD
Requires: 486DX/33, 4MB RAM, DOS 5.0, Doom II
List Price: $29.95

GAME PLAY:	★ ★ ★
GETTING STARTED:	★ ★ ★ ★ ★
GRAPHICS:	★ ★ ★
SOUND CHECK:	★ ★ ★
VALUE:	★ ★ ★ 1/2

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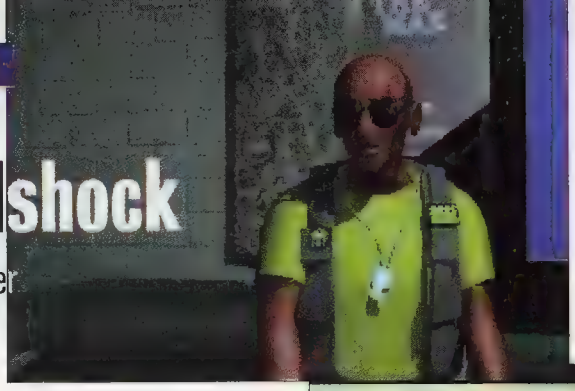
Shellshock

By Bill Meyer



Dogg-tag is one demanding officer.

Not too many games manage to mix black power and action-oriented tank warfare. But you get both in Shellshock, in which you are a new recruit in the Wardenz, an African-American military posse that battles terrorism and injustice around the globe in 25 hard-core missions.

Shellshock's high-intensity game play is enhanced by tricky terrains.

Shellshock easily rises above simple driving and shooting. Your M-13 battle tank doesn't always respond like the real thing, but it does have a fully functional turret, basic targeting system, radar, navigation, and communications, all of which lend some depth to the action experience. In addition, the reasonably engaging missions offer a variety of primary and secondary objectives, such as rescuing journalists and destroying truck convoys. They also feature assorted terrains—swamps, mazelike canyons, and more—plus all sorts of other variables, including time constraints.

Freeing hostages is just one of your many duties.

The game's reward system is definitely a worthwhile addition. If you find and pick up enemy crates during each mission, you get cold cash to spend repairing and modifying your tank during visits to Props, your supplyman. The more crates you uncover, the more money you get. With success largely dependent on tank strength, you can't just skate through the scenarios earning the bare minimum. Without the funds to repair your tank armor and buy necessary engine, track, and missile upgrades—not to mention air support—you won't get far.

The action in the heat of battle certainly is satisfying, but it isn't easy. You start out destroying loads of tanks, but soon take on armored personnel carriers, pesky machine-gun cannons, helicopters, and boats. While everything goes down with two shots of your main gun, the sheer number of enemy units makes most missions seriously daunting. On the plus side, everything is live and ready for your fire: You'll have a ball running over trees and fences and destroying entire buildings. The graphics don't set new standards, but the terrains, texture-mapped tanks, explosions, and high-res character art are enough to keep you on the edge of your seat.

Before you get too excited, Shellshock also has some annoying misfires. For instance, the mission briefings add story and atmosphere, but little practical strategic information. And if you momentarily tarry outside the mission boundaries, you lose.

Adding to the confusion, your radar doesn't distinguish between hostiles and mission targets, and your so-called communications guru, Earshot, tends to spout opposing instructions in the same breath. His directions often lead you into deadly bogs or the teeth of your enemy's defenses. Finally, Dogg-tag, the commander, expects you to hurry to a mission rendezvous point once you've finished your objectives, but he neglects to tell you to follow an arrow on your compass to find it.

In unique touch, each mission has a musical rap provided by running back William Floyd of the San Francisco 49ers. The raps sound authentic and fit the mood of the game, but the short loops quickly become repetitive.

Still, Shellshock's challenging game play, thoughtful details, and unusual attitude place it a step above most rapid-fire shooters.

Shellshock
U.S. Gold
415-693-0297

Developer: Core Design
Platform: DOS CD
Requires: 486/33, 8MB RAM, Super VGA, double-speed CD-ROM drive, sound card
List Price: $49.95

GAME PLAY:	★ ★ ★ ★
GETTING STARTED:	★ ★ ★ 1/2
GRAPHICS:	★ ★ ★ 1/2
SOUND CHECK:	★ ★ ★
VALUE:	★ ★ ★ 1/2

Despite a few misfires, Shellshock's fast pace and clever touches will satisfy action-hungry gamers.

TIPS

- You can target hostiles before you actually see them. Watch your radar for red dots, scan the horizon, and start firing before the enemy comes into view.
- When ground cover is in your way, you can't target. In this situation, use your radar as your guide. Line up your main gun's fire, which appears as yellow blips, with the enemy red dots.
- First things first: Repair your tank armor after each mission. Also, upgrade your chaingun early in the game to destroy ground-based machine-gun cannons.
- Don't rush into large encampments or fenced-in areas—they're usually crawling with enemy tanks. Take out the surrounding units, shoot through a wall, and try to target enemy vehicles from a distance.
- Pick up as many enemy crates as possible for cash to upgrade your tank. They are often hidden in larger crates or buildings, so blow up everything.

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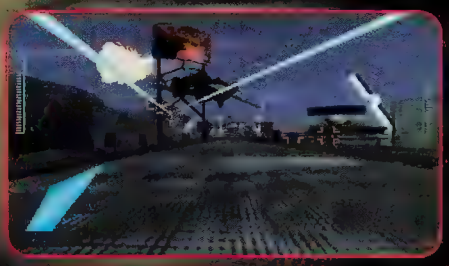

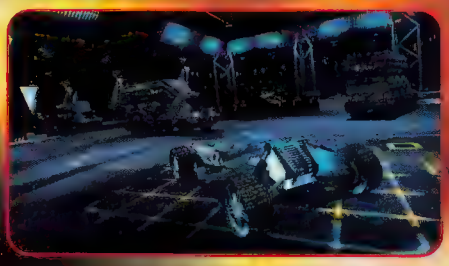

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RESURRECTION

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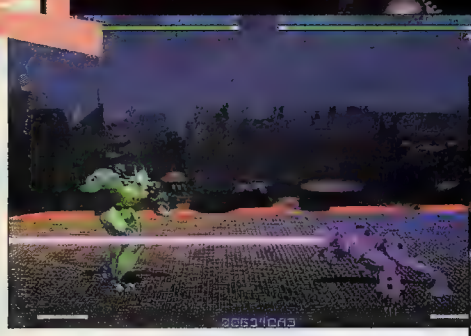
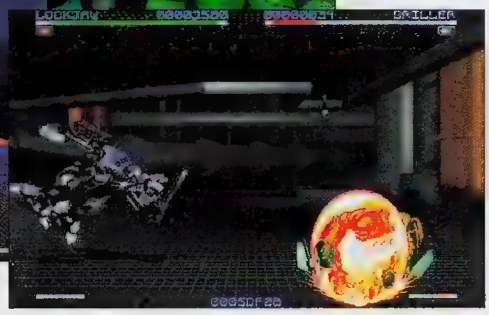
Rise 2: Resurrection

By Corey Cohen

When Suikwan strikes, you *won't* want to stand still.



Detain's got a mean laser.



Missiles are Lockjaw's favorite weapon.

Each 'bot has its own powers, strengths, and personality. (For a partial list of the characters' special moves, see our Web site at http://www.pcentertainment.com.) Though he's viciously fast, War's blows are weaker than those of the lumbering Prime-8. Suikwan uses a sword to attack, while Insane strikes with a pair of batons. Overall, the game does a nice job of making each robot look, move, and feel like a unique—and powerful—individual.

You'll need to keep an eye on more than the other fighter, though. Drills, cranes, acid, and other hazards pop out of many of the backgrounds. Time it right, and you can fire a projectile, launch a three-hit combo, then toss your opponent onto a land mine.

As awesome as that sounds, if you're using a GrIP or the PC Fighter gamepad, there's a catch: Moves requiring horizontal or vertical clicks work fine, but the ones involving diagonals (such as half-circles) are all but impossible! That's a bummer, because every robot has several moves triggered by a semi-circle and these six-button gamepads are the controllers of choice for fighting games. Mirage should have considered making these moves enabled by up-and-down or side-to-side presses only.

Still, other areas show a nice attention to detail. Whether you're choosing the color of your fighter, setting player handicaps, watching the ground shake, or listening to the opening soundtrack, you get the feeling the programmers were just as ravenous as their audience.

And there's something about Rise 2: Resurrection that grows on you. Maybe it's the sinister sounds of blistering circuitry, visible through your enemy's fractured skin. Or the thrill of blasting him to bits with a finishing move. Either way, as fighting games go, this one's pretty good.

More than any other genre, fighting games demand play that's so exciting, you're willing to repeat it to infinity. After all, it sure isn't their wispy background stories that have kept Street Fighter and Mortal Kombat so endlessly popular. It's dynamic, repeatable action—and the chance to kick butt.

With Rise 2: Resurrection, the sequel to the dismal yet big-selling Rise of the Robots, Mirage Technologies seems to have realized the obvious. True, the original game had some cool animations linking the various matches, but the fighting was simply terrible, with just eight moves and six characters to play.

In Rise 2, everything's changed: Eighteen playable characters. Special moves. Combination moves. Interactive backgrounds. Secret fighters. Weapons. Dismemberment.

Dismemberment?

That's right. Hand your opponent the ultimate degradation: Tear off one of his limbs and beat him with it! Rise 2 doesn't hold back, and neither should you.

With the original game's Cyborg defeated, the evil Supervisor has taken over Electrocorp, the city's next. As one of her 18 robot minions, you must fight, one by one, your 17 brethren—plus up to 10 hidden ones. Using a joystick, gamepad (including the Gravis GrIP system), or the keyboard, you can fight the computer or another human player in heroic, metallic clashes.

TIPS

• As with any fighting game, when using a new fighter, start off by getting a feel for the ranges of each punch and kick. You'll want to know exactly how far to stand before striking or jumping and striking. • When your opponent's attacking, alternate crouch-kicks to the legs with jumping straight up in the air and long-kicking. If he backs away, close the distance with a jump-kick. • Unless he's dazed, don't try to throw the other fighter; you'll almost always get hit. If you do manage to throw him, punch or hit him while he's in the air, then attack immediately once you land. • Get your opponent in a corner, then crouch-kick him repeatedly. When he tries to escape, jump straight up in the air and drive him back with a mid- or long-kick. • If you're playing as Prime-8, ground bash constantly. When using Loader, Suikwan, or other robots with a long reach, give yourself time to perform special moves by fending off your opponent with long kicks and punches.

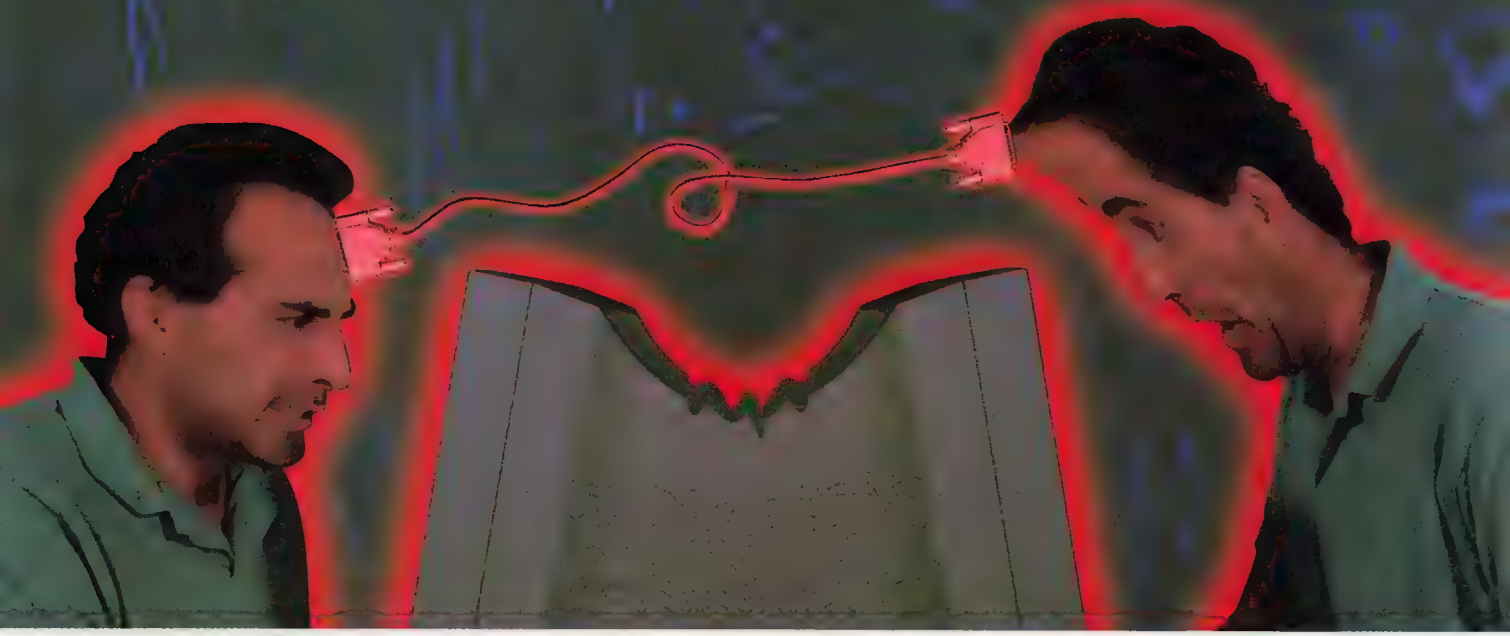
Rise 2: Resurrection
Acclaim Entertainment
516-656-5000

Developer: Mirage Technologies
Platform: DOS/Win 95 CD
Requires: 486DX/33, 4MB RAM, DOS 5.0 or Windows 95, VGA
List Price: $54.95

GAME PLAY:	★ ★ ★ 1/2
GETTING STARTED:	★ ★ ★ 1/2
GRAPHICS:	★ ★ ★ ★
SOUND CHECK:	★ ★ ★ 1/2
VALUE:	★ ★ ★ 1/2

Frustrating control issues aside, Rise 2 represents a monumental leap over its predecessor.

Don't Just Beat Your Opponents



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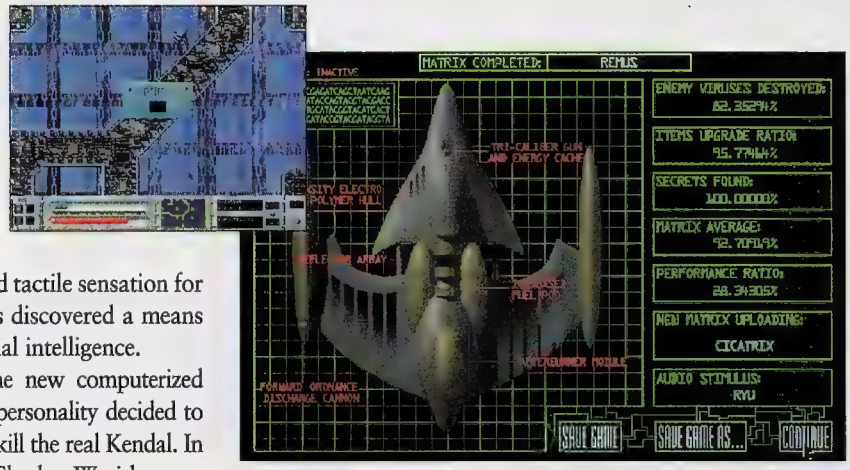
PLAY the Demo on the disc

ShadowWraith



Mac players get more action in ShadowWraith.

ShadowWraith
StarPlay Productions
800-203-2503

Platform: Mac CD
Requires: 68030/33, 8MB RAM, System 7, 256-color display, 13-inch monitor
List Price: $49.95

GAME PLAY:	★ ★ ★ ★ 1/2
GETTING STARTED:	★ ★ ★
GRAPHICS:	★ ★ ★ ★
SOUND CHECK:	★ ★ ★ ★
VALUE:	★ ★ ★ ★

Alex Kendal was on top of the world. The noted scientist had pioneered tactile sensation for use in virtual reality, and in the process discovered a means to clone human personalities via artificial intelligence.

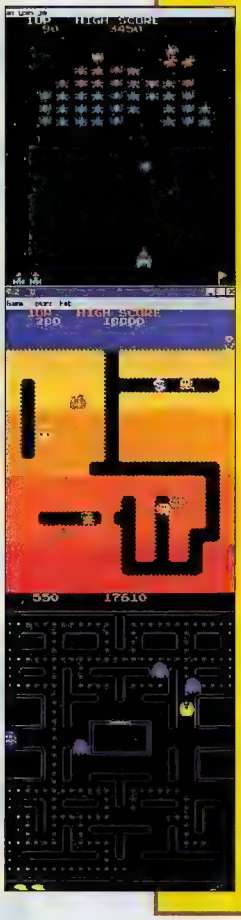
Then things began to fall apart. The new computerized personality decided to kill the real Kendal. In ShadowWraith, you play the murdered scientist reborn inside a virtual-reality world and bent on revenge.

Sound like the plot of the latest adventure title? Sorry. It's actually the rather complex lead-in to a new Macintosh action game from StarPlay Productions.

As Kendal, you pilot a tiny silver ship trapped in a fully rendered cyberworld full of dangerous enemy viruses and loads of power-ups, including shield rechargers and plasma deflectors. From a top-down perspective, you work through the game's 20 mazelike levels by blasting enemies and finding keys that open various doors. Teleporters can transport you into areas that would normally require a key. Secret doors and switches help make the game more interesting. An onboard scanner shows your relative position in the maze (but never reveals enemy locations).

ShadowWraith's keyboard-based flight controls may take a while to master; controlling your momentum while negotiating tight corners is particularly frustrating at first. But an interesting progressive-music soundtrack will give you something fun to listen to while you practice.

Sure, there's nothing really new here, but ShadowWraith is still a fine diversion for Mac gamers. —*Catherine D. Peddie*



Microsoft Return Of Arcade

You can't say much about Microsoft Return of Arcade. It is what it is: faithful Windows 95 re-creations of four more classic arcade games from the '70s.

This time, you get Pac Man, Dig Dug, Pole Position, and Galaxian. (The original Arcade featured Asteroids, Centipede, Battlezone, Missile Command, and Tempest. For a review of Tempest 2000, Atari's recent release for the PC, see April 1996, page 48.)

As before, the games reappear in their entirety, complete with the original game play, simple graphics, and cheesy (if classic) sound effects. You can save your quarters, relive your youth, and enjoy a quick hit of fun without leaving Windows 95, but these games clearly show their age.

Surprisingly, however, the simplest and lowest-tech hold up the best. Gobbling "power pills" in Pac Man is still a kick 20 years after the game gobbled up most of the world's spare change, for example. And Dig Dug remains a clever action puzzle. But Galaxian simply looks silly next to today's space-based shooting games, and Pole Position's basic charm can't obscure the fact that you're racing the digital equivalent of a Model T.

Galaxian, Dig Dug, Pac Man, Pole Position: You get four classic games in one package.

Moving to the computer adds some nice customization touches, letting you set the controls, number of lives, and rates of movement and fire. Joystick support improves on the standard keyboard and mouse controls in this kind of game, but it's still no match for the arcade machines.

But that's not the point. If you loved these games the first time around, here's your chance to play them again. If you've never seen them before, Return of Arcade makes a most amusing history lesson. —*Fredric Paul*

Microsoft Return of Arcade
Microsoft
800-426-9400

Platform: Win 95
Requires: 486DX2/66, 8MB RAM, Windows 95, local-bus Super VGA video
List Price: $34.95

GAME PLAY:	★ ★ ★ ★
GETTING STARTED:	★ ★ ★ ★ ★
GRAPHICS:	★
SOUND CHECK:	★
VALUE:	★ ★ ★

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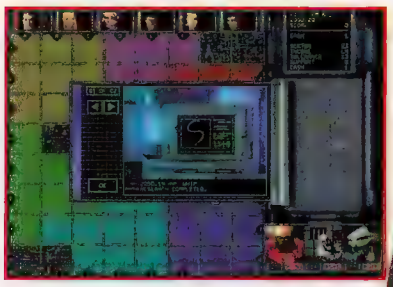

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Stick Man GAMES

ADVENTURE

Kingdom o' Magic

By Daniel Morris

A walking, talking lizard, Thidney gets mixed reactions from townspeople.

Charm is not one of Thidney's strong points.

Most fantasy adventures send you off with sword securely in hand. Kingdom o' Magic sends you off with tongue firmly in cheek.

For gamers who already take their fantasy epics with a grain of salt, Kingdom o' Magic is a clever parody of the genre that asks little more of players than to accept a quest and enjoy the ride. Billing itself as a "comedy epic," it combines a King's Quest–style game engine with a healthy dose of sarcasm.

Choose the boxing-glove icon and then wait for the dust to settle.

Kingdom is thankfully light on the number-crunching, nuts-and-bolts role playing and is much heavier on character interaction. I was genuinely impressed with the interaction sequences—typically, this is the area where most adventure (and certainly quest-type) games falter. Conversations with nonplayer characters (NPCs) in most games tend to be lifeless, humdrum encounters. Kingdom is almost the polar opposite: its conversations and interactions are funny, crisp, and entertaining, even as the actual questing grows tiresome. You'll find yourself going out of your way to find NPCs to chat with as your quest sits on the back burner.

The three quests can be undertaken as either of two characters. Thidney is a man-size, bipedal lizard who speaks with a nasal Scottish accent. He's more warrior than diplomat, as you'll soon realize when you encounter someone on the road, stop to say, "Hi," and then find that your menu of possible greetings are all belligerent! Thidney looks for trouble and will get you into fights with random characters no matter how pacifistic your approach may be.

Shah-ron, the bubbly blonde adventurer, is much more suited to the conversational style of play. While she doesn't sling insults in Thidney's league, she is very good at bartering and coaxing what she needs from people without having to resort to violence.

When the game is really funny, it's because of its dead-on parodies of quest-game conventions. All the staples of sword-and-sorcery epics receive a skewering somewhere in these two discs, right down to the snarling, iron-helmeted dwarf who greets you by screaming "War! War! War!" no matter how serene the setting. When in trouble, cast your Spell o' Kick in the Shins to temporarily stun an opponent. If you're really outclassed, call in the Spell o' Airstrike. (Who needs magic arrows when you've got a tactical bomber wing at your disposal?)

Along the way you'll encounter ninja bakers, satanic gingerbread men, a Disco King, a golem who impersonates Elvis, and a host of other sordid characters too lengthy to list. Each provides a piece of the puzzle needed to solve the quest, though in this game, the interactions are the show and the puzzles are forced and contrived. I could have lived without the interlude in which you have to successfully negotiate eight levels of a medieval Pac Man game.

However, a lot of love and care went into the writing of Kingdom o' Magic. This game is an affectionate ribbing of fantasy adventure, and it should appeal to any fantasy gamer's unspoken knowledge of the innate silliness of most of the genre's conventions. While it doesn't stack up as an adventure game itself, Kingdom is a sharp and funny riff on the genre's most-loved, least-ridiculed qualities.

Kingdom o' Magic
Sales Curve Interactive
800-292-3797

Platform: DOS CD
Requires: 486DX/33, 8MB RAM, DOS 5.0, double-speed CD-ROM drive, mouse, sound card
List Price: $49.99

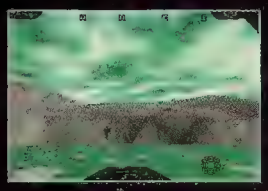
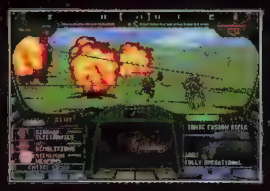
GAME PLAY:	★ ★ ★ 1/2
GETTING STARTED:	★ ★ ★ ★
GRAPHICS:	★ ★ ★ ★
SOUND CHECK:	★ ★ ★ ★
VALUE:	★ ★ ★ 1/2

This tongue-in-cheek parody of quest games amuses but doesn't inspire.

TIPS

• **Save often: You won't get far without meeting some comical demise.** • **Check the headstones of slain wanderers to pick up any items they may have left.** • **Use the Kid in a Cage to take out the evil gingerbread men on Baker's Isle.** • **You can use the cellular phone to call for hints from the designers, but the service costs a gold piece.**

Time To Kick Ass

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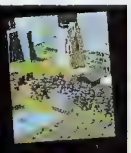
CyberJudas

Do you have what it takes to be president?

You are the commander in chief in a time when the world conducts most of its business in cyberspace. Your cabinet has been infiltrated by three techno-traitors, who you must expose before they cause global crises for which you will be blamed.

This is the setting for Merit Studios' CyberJudas, a sequel to Shadow President, a 3-year-old simulation of America's ability to exert economic, social, and military pressure on world events.

CyberJudas
Merit Studios
800-238-4277



Developer: D.C. True
Platform: DOS CD
Requires: 486/33, 8MB RAM, Super VGA
List Price: $69.95

GAME PLAY:	★ ★ ★ ★
GETTING STARTED:	★ ★ ★ ★
GRAPHICS:	★ ★ ★ ★
SOUND CHECK:	★ ★ ★ ★
VALUE:	★ ★ ★ ★

Using a private CyberSWAT squad and visiting your employees' offices for clues, your task is to unearth each traitor and put a stop to his plans. Of course, you're still expected to perform your standard presidential functions, such as making budgetary changes and selecting from more than 20 ways to interact with any of your 200 global partners. You'll find there's more than enough to keep you busy, from coping with riots in Brazil to requests for increased economic aid to China.

There's also a second game setting, Cabinet Wars, in which there are no traitors, but you still have to deal with a cabinet full of prima donnas vying for your time and offering conflicting advice. As a bonus, CyberJudas includes Shadow President, in which a respectful cabinet provides information on demand.

With attractive Super VGA graphics, appropriately New Age music, and excellent voiceovers for your cabinet members' lines, CyberJudas is technically proficient. But the game's best feature is its open-endedness. Everything is more or less up to you, which encourages replays by ensuring that no two games unfold exactly alike. —*Barry Brenesal*

CyberJudas has been delayed for more than a year. This review is an update of one we ran in January 1995, based on a beta version of the game.

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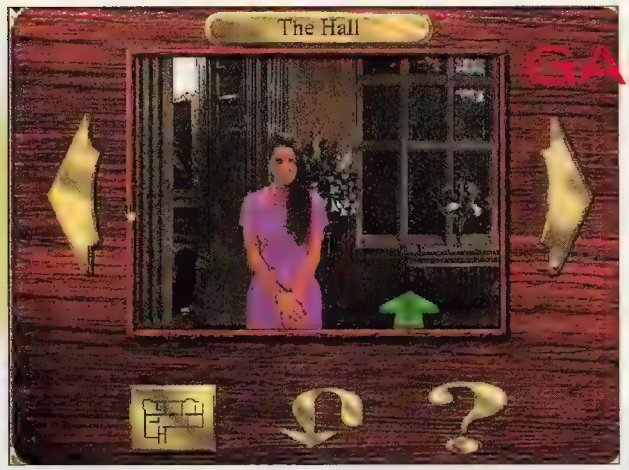
Foul Play: Mystery At Awkward Manor

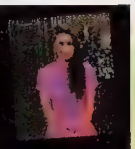


Get a Clue and pass on Foul Play.

The full name of this multiplayer computer whodunit should tip you off to what's in store. Not only is its game play "foul" and "awkward," but it's a "mystery" why the most important part of the game, sleuthing, is so bad.

Foul Play is a blatant rip-off of the venerable board game Clue—right down to its video characters, who include Miss Sang Lo, a Miss Scarlett wanna-be, and Major Gallop, a Colonel Mustard pretender wearing a yellow vest and monocle. This plagiarizing might be forgivable if the computer game brought to life Clue's search of a mansion to find murderer, murder weapon, and murder location.

Foul Play
The Armchair Travel Company
800-840-6025



Platform: Mac CD
Requires: System 7.1, 8MB RAM, 256-color, 13-inch monitor
List Price: $49.95

GAME PLAY:	★ 1/2
GETTING STARTED:	★ ★ ★
GRAPHICS:	★ ★ ★
SOUND CHECK:	★ ★
VALUE:	★ 1/2

But while the game's graphics—a collection of some 5,000 still photographs joined together in panoramic environments similar to QuickTime VR—are authentic-looking and inviting, clue-gathering quickly turns frustrating. Very few objects in a room are "hot" and there are no visual clues to tip you off, so you end up repeatedly clicking around in hopes of finding something. Also, you can navigate certain areas of the rooms only by finding and clicking on the few large green arrows that are superimposed on the environments. This inelegant approach detracts from the game's exploratory focus. Other clumsy touches, such as requiring other players to look away from the screen while secret character information is disclosed, only makes things worse.

Don't let the included Detective Notepads and pencils fool you: this is no computerized Clue. Stick with the board game.

—Christine Grech

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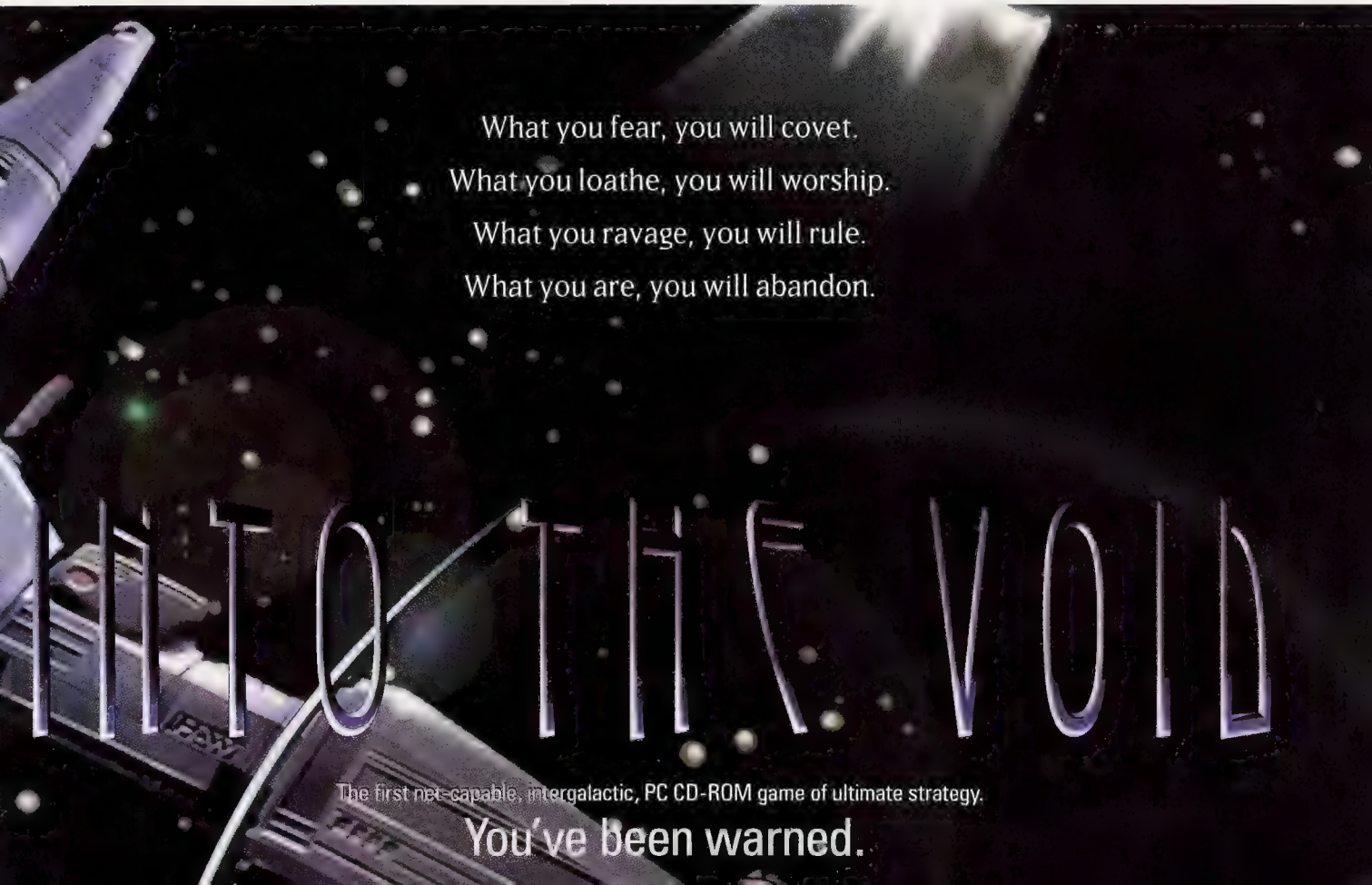
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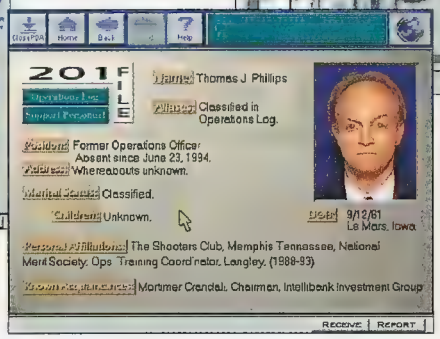
ADVENTURE

Spycraft: The Great Game

By Shane Mooney

Analyze the damage done to the glass surrounding the late Russian presidential candidate to figure out what type of bullet and weapon were used.

Get hints from the man himself, William Colby, as he explains his philosophy on hiring new agents.


201 FILE
Name: Thomas J. Phillips
Alias: Classified in Operations Log.
Position: Former Operations Officer. Absent since June 23, 1994.
Address: Whereabouts unknown.
Marital Status: Classified.
Children: Unknown.
DOB: 9/12/61 Le Mars, Iowa
Personal Affiliations: The Shooters Club, Memphis Tennessee, National Merit Society. Ops Training Coordinator, Langley. (1988-93)
Mortimer Crandell, Chairman, Intellibank Investment Group
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REPORT

Trust no one: Former CIA operatives make the best terrorists.

From the moment I first heard Sean Connery utter his famous "Bond—James Bond," I knew I wanted to be a spy when I grew up.

Unfortunately, I'm all grown up now, and I hardly qualify as spy material. The closest thing to stealth that I'll ever have is my Diamond Stealth video card. But all is not lost. I can participate in The Great Game as a rookie CIA operative.

Using such top-level consultants as former CIA director William Colby and former KGB major general Oleg Kalugin, Activision has come up with a riveting post–Cold War thriller based on the real-life Russian elections. It's right up there with the best John Le Carre novels and the latest in state-of-the-art CD-ROM games.

In Spycraft, the collapse of the Soviet Union has led to a complete restructuring of international espionage. The threat of nuclear war has been replaced with the threat of nuclear weapons trafficking, and now the U.S. and Russia must unite to stop the international terrorism that rips through both countries.

Someone or some group has used a highly classified U.S.-made weapon to shoot a Russian presidential candidate. As the leader of a spy team, your job is to find out who's involved and stop them before they can assassinate the president of the United States. Before you know it, you find yourself caught in a web involving former CIA operatives, guns-for-hire, and even a mole within the CIA itself.

If you're picturing a game that's going to have you jumping from helicopters and chasing bad guys with your 9mm Beretta, think again. Spycraft is a realistic portrayal of how government intelligence really operates, which I found just as enthralling as watching Pierce Brosnan employ Q's latest high-tech gadgetry.

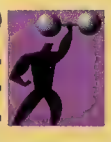
As you play, you'll have to use various computer tools to monitor the activities and phone calls of fellow government workers. In addition, you'll have to master voice-analysis equipment to determine just whose voice you're listening to, and how to detect background noises for much-needed clues. You'll have to study files, develop composite sketches, and decipher secret codes, all in an attempt to find the assassin.

Spycraft isn't just a dry exercise in number crunching, though. There are times when you'll have to direct a delicate hostage rescue, or terminate the enemy with your trusty firearm.

Unlike many games, Spycraft uses its high-quality full-motion video to enhance the gaming experience rather than hinder it. The game's seamless combination of compelling game play and top-notch production values helped immerse me in the world of kill-or-be-killed intelligence. Another nice touch is an online element that lets players use the Internet to access clues and updated news items relating to the game's story. You won't need the online information to play the game, but it should heighten Spycraft's sense of realism.

I found myself hard-pressed to put aside the game until I had managed to save the free world as we know it. Now that the planet is safe for democracy, I'll take my martini shaken, not stirred.

TIPS



- **Be sure to exhaust every possible option before drawing your conclusions. Even if you think you've found what you're looking for, check all other possibilities.**
- **When you analyze a phone conversation, be sure to isolate every voice and noise in the entire conversation.**
- **Don't forget to check out noises in the Voice IDs that workers use to gain clearance to secured areas. A stray sound could help you find something suspicious.**

Spycraft: The Great Game
Activision
800-477-3650

Platform: DOS/Win 95 CD
Requires: 486/66, 8MB RAM, MS-DOS 5.0, double-speed CD-ROM drive
List Price: $49.95

GAME PLAY:	★ ★ ★ ★
GETTING STARTED:	★ ★ ★
GRAPHICS:	★ ★ ★ ★ ★
SOUND CHECK:	★ ★ ★ ★
VALUE:	★ ★ ★ ★

Top-notch video, solid acting, quality graphics, and compelling game play put Spycraft on par with the latest Hollywood techno-thrillers.

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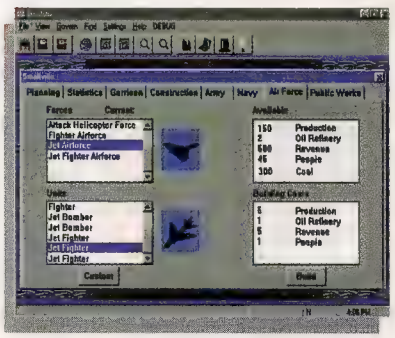

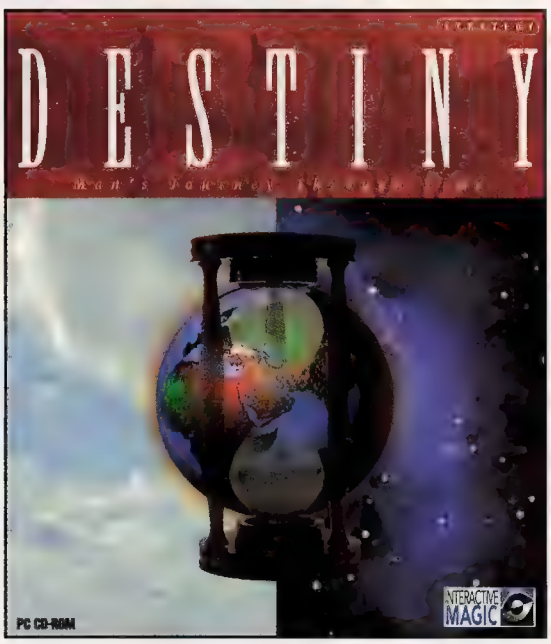

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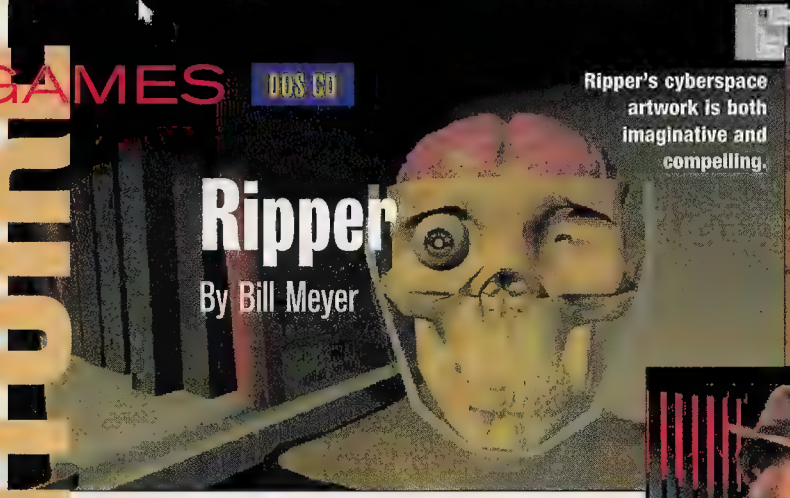
Ripper

By Bill Meyer



Ripper's cyberspace artwork is both imaginative and compelling.

Some surprisingly difficult puzzles await you.

Christopher Walken stars, but he doesn't shine.

Take 2 Interactive's $4-million Ripper may feature Christopher Walken, Karen Allen, Burgess Meredith, and Jimmie Walker, but the stars of the show are the game's brain-numbing puzzles and stylish artwork.

The game casts you as a reporter, but you won't solve this techno-thriller through just simple snooping. Ripper features a daunting array of puzzles, from abstract conundrums in cyberspace to more classic inventory-based challenges. Couple this with solid full-motion video, superbly rendered artwork, and some 30 characters with which to interact, and you have one immersive game.

You play Jake Quinlan, a reporter for the *Virtual Herald* who has been covering the ghastly exploits of a Jack-the-Ripper copycat in futuristic New York. It seems the serial killer has chosen you as his pen pal, dropping you a line each time he strikes. His victims carry his trademark knife incisions, which baffle authorities with their precision. When your own assistant and girlfriend, Catherine Powell, is attacked, this story becomes more than front-page news. With Catherine in a deep coma at the Tribeca Medical Center, under the supervision of a Dr. Clare Burton, you become one of the few people who can save her.

You find Catherine knew more about the Ripper than you imagined, and was close to discovering the murderer's identity when she was attacked. Now you must pick up her investigation, discover what she knew, and delve into her consciousness with the information to reconstruct her memory. If you do, you'll not only bring her back, but you'll also unlock a visual memory of the Ripper hidden in her mind.

To begin the process, you'll have to travel all over New York. First you'll visit the Soho police precinct of Detective Vincent Magnotta—played by Walken—to raid personal files and plant bugs. Then it's off to the Tribeca Medical Center, where you learn that Dr. Burton is not following standard procedures with your favorite patient. You'll also need to call on cyberguru Eddie Falconetti at his safehouse to learn about his sordid past with Magnotta and Burton. And don't forget to visit the smoke shop of Soap Betty (Walker) for information about the cyberspace technique ICE, and to poke around NYU for dirt on Burton and a gang of futuristic web jockeys known as the Web Runners.

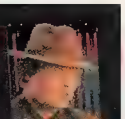
The clues at each locale won't just jump out at you, and locked doors, uncooperative characters, and tricky shape and number puzzles will block your progress. One puzzle forces you to align crystals in the shape of a constellation, while another will make you set clocks for three different time zones. Make some headway and you'll uncover passwords for various cyberspace wells, where the most critical information lies. Unfortunately, many of these sites are protected by devious puzzles and deadly ICE monsters. Yet, despite the various obstacles, the game play is logical and effectively woven into the story.

Ironically, the supposedly marquee elements of the game are disapointing. Don't buy it on account of Walken: He overacts and is generally unbelievable. Ripper's script has its ups and downs, too. It seems to confuse realistic adult language with bad language and gets a tad silly with its futuristic lingo. If not for the striking techno-art and creative online locations, the game's cyberspace premise would seem a bit overdone.

Navigating Ripper's point-and-click environments can be somewhat cumbersome: at many junctures, you can only move left or right. And other than Blue Oyster Cult's "Don't Fear (the Reaper)," which sets the mood, the music is strictly atmospheric.

On the whole, though, Ripper delivers truly satisfying adventure game play for puzzle enthusiasts. Anyone who appreciates art and animation that is second-to-none will be screaming for more.

Ripper
Take 2 Interactive
800-728-2532



Platform: DOS CD
Requires: 486DX/50, 6.5MB RAM, VESA-compatible graphics, double-speed CD-ROM drive, mouse, sound card
List Price: $59.99

GAME PLAY:	★★★★
GETTING STARTED:	★★★★
GRAPHICS:	★★★★ 1/2
SOUND CHECK:	★★★ 1/2
VALUE:	★★★★

Ripper surpasses expectations with its slick production values, gorgeous art, and sophisticated puzzle play.

TIPS

• Piece together the coffee mug Magnotta broke at the crime scene. An important clue is written on it. • When given the option to be polite or tough with characters who have information, play the tough guy. • Catherine Powell's apartment has several puzzles. Her abstract painting of a fish and interest in astronomy have special importance. • When battling the multi-armed ICE monster at Catherine's well, the right mouse-button activates a shield. Inside the well lies Catherine's journal. • Magnotta will interrupt your discussion with Sergeant Brannon in the police station and leave his gun and security card at the desk. Grab the card. Likewise, grab Dr. Burton's card from Tribeca's lobby desk. • In Hamilton Wofford's cottage, pay close attention to the patent sign on the wall as you ascend the staircase to his room. Its patent number is vital for a puzzle involving a funky cash register. • By piecing together a sentence on several fliers on an NYU bulletin board, you can decipher the address for the Web Runners' loft. Pay special attention to the notices with numbers.

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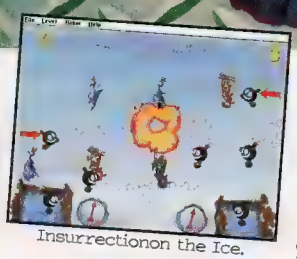

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Virtual Chess

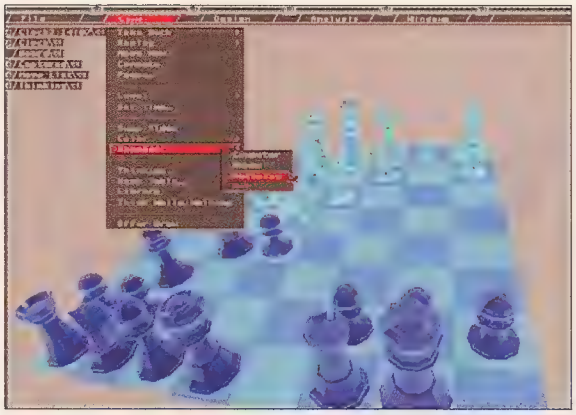
Two hundred years ago there were international debates on whether a mechanical chess player was feasible. Now, the best computerized chess programs surpass most recognized chess masters. I•Motion's Virtual Chess is a good example, having just won the 1995 Harvard Cup Championship against a mixed field of top-rated human and computerized players.

Virtual Chess may not be as feature-rich as Chessmaster 4000 or Kasparov Chess, but it's no slouch, either. One of the first things you'll notice when you load up the game is that the visuals—a selection of four different Super VGA chess sets on 2-D and 3-D boards—are quite good.

GAME PLAY:	★ ★ ★ 1/2
GETTING STARTED:	★ ★ 1/2
GRAPHICS:	★ ★ ★ ★
SOUND CHECK:	★ ★
VALUE:	★ ★ ★

Virtual Chess has several level settings, including Novice, Beginner, and ELO 1200, which is somewhat below most rated players. A number of fine-tuning controls allow you to define the engine's average calculating time, individual move time, and overall game time.

Though the Beginner's setting displays all legal moves for any piece selected, Virtual Chess fares poorly as a teaching tool. It offers no online help, much less an animated tutorial explaining game basics. Virtual Chess's Analysis provides the best line of attack/defense for each move in any recorded game, but it pales in comparison to Chessmaster 4000, which offers a sophisticated English-language parser that explains *why* you should act as it suggests, with all the ramifications.



Virtual Chess is a poor teaching tool but an excellent silicon opponent.

In the endgame analysis, Virtual Chess' rating depends upon your own chess credentials. If you're Master level or above and want the best opponent possible, look no further. However, Chessmaster 4000 and Kasparov's Gambit are only marginally less challenging to a Master and offer many more features, making them better suited for average players.

—Barry Brenesal

PC Entertainment SHOPPER

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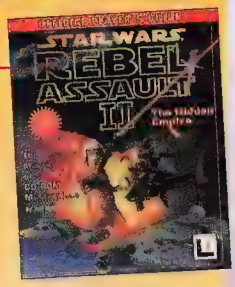
Rebel Assault II Official Player's Guide

By Jeff Hoff

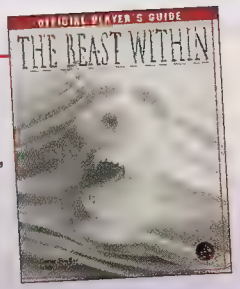
Can you foil Lord Vader's evil plot to destroy the Rebel Alliance? This guide includes strategies, cheat codes, a complete discussion of how to use the Difficulty Editor, and a thorough look at the making of this CD-ROM masterpiece.
$19.99
0763
Platform: PC CD-ROM



The Beast Within Official Player's Guide

By Corey Sandler

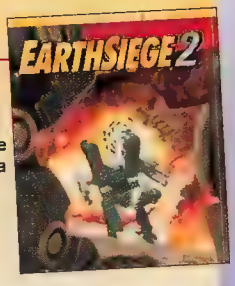
Help Gabriel Knight and his capable assistant, Grace, investigate werewolf attacks in Germany. This guide includes a comprehensive walk-through, a hint section, and a look at the creators of this amazing video adventure.
$19.99
078X
Platform: PC CD-ROM



EarthSiege 2 Official Player's Guide

By John Fisher

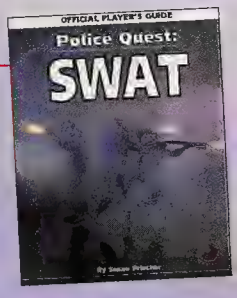
Prometheus is back with a vengeance after setting up a new base on the moon. This time, he's building more of his Cybrids (robots) and sending them to Earth on a mission to kill all humans. The future of Earth and all humanity is in your hands, and this strategy guide is your best chance for survival.
$19.99
0879
Platform: PC CD-ROM



Police Quest: SWAT Official Player's Guide

By Susan Frischer

Inside you'll find a complete walk-through of all training and call-up scenarios, a catalog of SWAT equipment, and a comprehensive tactics chapter. There's also an in-depth interview with former LAPD Chief Daryl Gates.
$19.99
0771
Platform: PC CD-ROM



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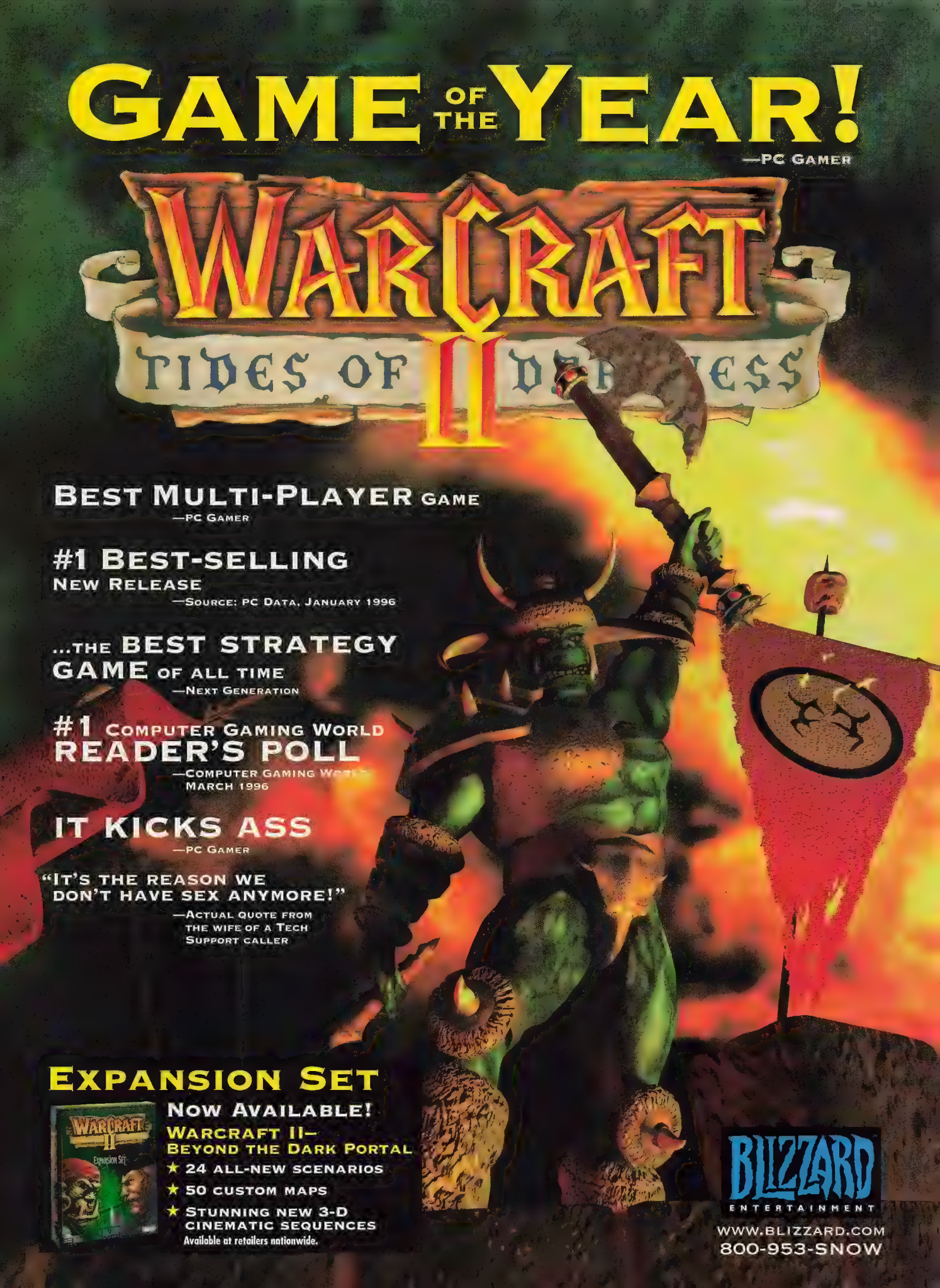
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Advanced Tactical Fighters

By Anthony Lukban

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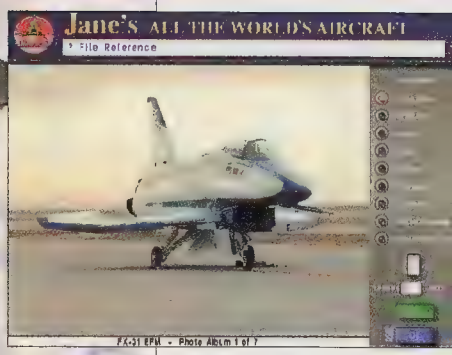
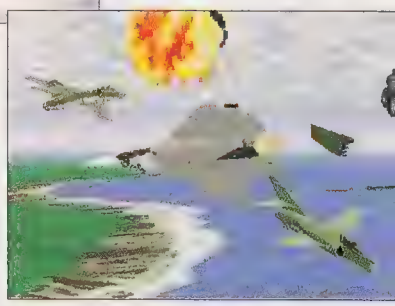


Check out Jane's extensive aircraft library.

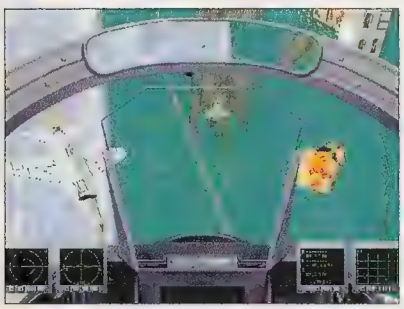
To win a modern war, you must first be the master of the sky. That's why ever since World War II, countries have gauged their military strength by the technology of their aircraft—and the quality of their pilots.

The relentless pursuit of the technological edge has made today's fighter jets incredibly powerful and complicated battle machines, with unbelievable speed and maneuverability. Tomorrow's fighters will push the limits even further.

Electronic Arts and Jane's Information Group, the international defense-industry publisher, give you the chance to pilot the next generation of super planes with Advanced Tactical Fighters. Essentially a follow-up to EA's terrific U.S. Navy Fighters, ATF adds technical information from Jane's extensive aircraft library, more modern and futuristic jets, support for eight-player dogfights via network play (flying on opposing teams or in a joint effort against the computer), head-to-head play via modem or serial connection, and two brand-new campaigns.



Rule the sky with your F-22's thrust-vector capability.



See how your new jet fares against the deadly F-16.

Using recently declassified information, ATF simulates seven advanced planes, some of which are still on the drawing board. You can fly the F-22, XF-29 Forward Swept Wing, and XF-31A EFM fighters; the F-117A Night Hawk and B-2A Spirit bombers; the XF-32 ASTOVL short-takeoff/vertical-landing fighter; and the French Dassault Rafale multi-role fighter. Some of these stealthy and exotic planes feature thrust-vectoring capabilities—a propulsion technology that lets the engines swivel, providing radical maneuverability.

ATF retains the unique and easy-to-use interface pioneered in U.S. Navy Fighters. The game still includes the fun quick-mission-setup feature and also lets you build custom missions, though it eliminates video mission briefings.

The two new campaigns let you test the new hardware in the real world. The first takes place over Egypt in 1998, pitting you against an Islamic Fundamentalist uprising. Here, instead of the typical MiGs and Sukhois, you square off against exported F-16s, F-5s, and Dassault M2000s. The second campaign takes you to the Far East in the year 2002, fighting for air superiority against a large Chinese force. This time, the opposing planes are a mixed bag of Chinese-manufactured Q-jets and Russian Sukhois and MiGs. In both campaigns, missions range from air-combat patrol to low-level air-to-ground attacks.

Don't expect major improvements in graphics or frame-rate performance, but you will find some more subtle additions. Press the F8 key on a targeted kill, for example, to see a different and unique detail. And you still get U.S. Navy Fighters' motivating, atmospheric radio calls and commands.

ATF is a serious sim, and you'll need a serious computer to run it. Trying to play on a 486 will turn these über-jets into Sopwith Camels, and even a 150MHz Pentium with 24MB of RAM can't deliver a completely smooth frame rate with all the highest graphics settings selected.

Getting started is just as demanding. Flying a real jet fighter takes years of training, and ATF's learning curve is only slightly easier, depending on how many options you use. Fortunately, becoming an ace pilot is both challenging and educational—especially with the principles of advanced flight technology embodied in these new planes.

As a pure air-combat simulation, ATF delivers a thrilling peek into the near future of fighter aviation. And its connection to Jane's Information Group makes the game even more credible.

TIPS

- **When flying an F-117A Night Hawk, which doesn't carry air-to-air missiles or guns, avoid visual contact with enemy aircraft. They can't read you with their radar but they'll spot you with their eyes. Use your RWR and IR radar to check their proximity and fly away from them quickly.**
- **When flying an F-22, XF-31A, or XF-32 in a turning dogfight, use your thrust-vector mobility to out-turn the enemy.**
- **When conducting bombing runs in a B-2A or F-117A using laser-guided paveways (smart bombs), open your bomb-bay doors only when you reach an 80 percent probable-kill rating. Opening the bay doors too soon makes you more visible to enemy radar.**

Advanced Tactical Fighters
Electronic Arts
800-245-4525

Platform: DOS CD
Requires: 486DX2/66, 8MB RAM, DOS 5.01, Super VGA, double-speed CD-ROM drive, mouse
List Price: $59.95

GAME PLAY:	★ ★ ★ ★ 1/2
GETTING STARTED:	★ ★ ★ ★
GRAPHICS:	★ ★ ★ ★
SOUND CHECK:	★ ★ ★ ★
VALUE:	★ ★ ★ ★

The latest aeronautic technology sets ATF apart from the flight-sim crowd.

Prepare for the Assault–We descend upon them with Fire!

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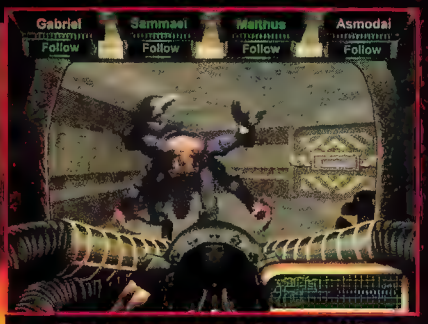

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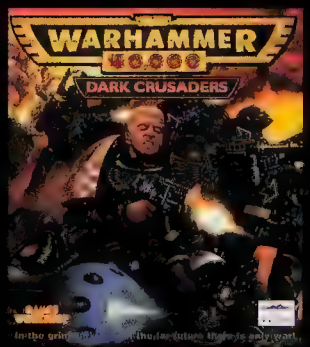

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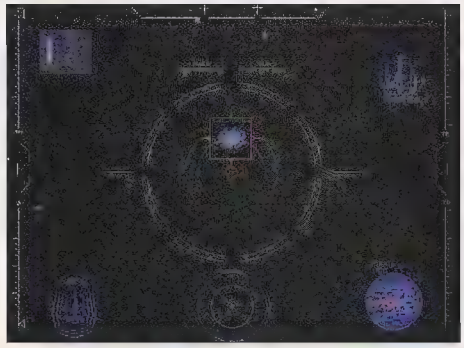
MINDSCAPE®

Wing Commander IV: The Price Of Freedom

By Shane Mooney



Point, click, and ship: Take care of enemy pirate ships with your target lock and lasers.

Ten million bucks buys some pretty spiffy special effects.

The cremated Kilrathi homeworld has barely had time to cool, and the afterburners of your Excalibur space fighter are still warm from having vanquished the eons-old enemy. You've pooh-poohed your promotion to Colonel and the mighty Heart Of The Tiger has opted to spend his days in the reserves kicking cow patties as Farmer Christopher Blair. Yes, Wing Commander III is truly over, and everything should be peaceful.

And yet, someone claiming to be from the Border Worlds, a longtime ally in the Kilrathi Wars, has been making terrorist attacks against defenseless Confederation ships and outposts. You now have the pleasure of having your old "friend" Maniac call you back to active duty, where Admiral Tolwyn wants you to scout out the Border Worlds and find out if we're on the brink of civil war.

Everything's changed, you see. Without a common foe in the Kilrathi, mankind has turned its hate inward. Old friends are not who they seem to be, and you find yourself questioning your allegiance to the very government you've fought so hard for, discovering that in this new Kilrathi-free era of peace, our greatest adversaries are not some far-away felines, but ourselves.

Thus Wing Commander IV begins. The Price Of Freedom is without question the most ambitious computer game since, well, Wing Commander III. And, while in the Wing Commander universe, the Confed mantra may be "The Price Of Freedom Is Eternal Vigilance," Origin paid $10 million—a budget bigger than that of some Hollywood films (for more information, see Game News, page 10).

If you ever had the opportunity to play Wing Commander III, which blew the doors off the computer gaming world just last year, you'll be glad Origin has gone to such extremes. Because, while it's not as revolutionary as its cinematic sibling, Wing IV is even more entertaining.

Load it up and you'll witness a mind-blowing introduction rivaling any thing by Industrial Light and Magic. If only every big-budget sci-fi flick were as well done. The theatrical video segues seamlessly into actual game play, where you'll find yourself making decisions with far-reaching ramifications.

The video is actually better-looking this time around, but don't think that $10 million buys only better video compression. All that green also allowed Origin to substitute actual sets for those obvious 3-D–rendered backgrounds that gave Wing III a B-movie look and feel.

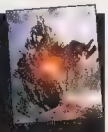
These real props and sets seem to have improved the actors' performances. For example, I wasn't too impressed with Mark Hamill in Wing III, but here he turns in one of the best CD-acting jobs I've seen, second only to Tom *"Back to the Future"* Wilson's incredibly entertaining return as Maniac. (Where's this guy been hiding?) Of course, if you're familiar with Wing III, you'll know the other big names: Malcolm McDowell (*Star Trek: Generations*), John Rhys-Davies (*Raiders of the Lost Ark*), and Jason Bernard (*Herman's Head*). Alas, Ginger Lynn-Allen isn't here to offer romantic tangents, but with a game this rich, you'll hardly miss her.

CHEATS

As in Wing II, if you type WC4-chicken to start the game, you can hit Alt-W to destroy any ship that you lock onto. (But be careful—that includes friendly ones, too).

TIPS

• Before engaging in combat, be sure to hit Alt-B to signal your fellow fighters to "Break and Attack." Otherwise, they'll just fly around saying things like "I'm ready to strut my stuff" without doing a whole lot of strutting. • Be sure to roam the space stations in between missions. As you would in an adventure game, move your cursor all over the screen to find places you can go and people you can talk to. • Your first choice in the game involves helping out a fellow vet. Remember, what goes around comes around. • In mission two, stay a minimum distance of 12,000 klicks from the pirates you need to follow and jet as soon as you get the "mission accomplished" message. • Boosting Pliers' morale will definitely get you places.



Wing Commander IV
Origin Systems
800-245-4525

Platform: DOS CD (runs under Windows 95)
Requires: 486DX/4, 8MB RAM, MS-DOS 5.0, VGA, double-speed CD-ROM drive
Street Price: $55

GAME PLAY:	★ ★ ★ ★ ★
GETTING STARTED:	★ ★
GRAPHICS:	★ ★ ★ ★ ★
SOUND CHECK:	★ ★ ★ ★
VALUE:	★ ★ ★ ★ ★

With quality acting, top-notch video and special effects, and wonderfully compelling game play, Wing Commander IV has it all—and then some.

The Intrepid starts out as your enemy, but before long, you'll be fighting by its side.

More importantly, the video isn't limited to just passive plot revelations. Between missions you'll get to wander the space station to interact with the other characters and piece together the game's ever-unraveling conspiracy.

But, as we all know by now, awesome cinematics do not a great game make. Thankfully, the action-oriented space combat at the heart of this tiger makes the game aces in both departments. As in Wing III and games like X-Wing and Tie Fighter, you fly your assigned spacecraft through various sectors of space—usually taking out any enemy ships from your first-person perspective. Through the course of the 30-odd missions, which typically pair you with one or more wingmen, the game's plot unfolds. In addition to the staple seek-and-destroy flights, you'll get to fly more reconnaissance and rescue missions over planet terrain. You'll also get more than one wingman on several occasions, which lessens the you-against-the-universe feel of previous Wing Commander games.

The first thing Wing III veterans will notice is that the new game replaces the rendered cockpits with a heads-up display. Though some may miss seeing their hand move as they work the throttle, I found the new look appropriate for a space-based flyer. After all, you don't stare at your hands and knees when you drive your car.

You'll also find that enemy ships are a lot faster this time around, lending an air of realism to the game. Plus the artificial intelligence of both the enemy and your wingmen has been improved. In Wing IV, Maniac really flies like a maniac, and the enemy's flying skills are vastly superior.

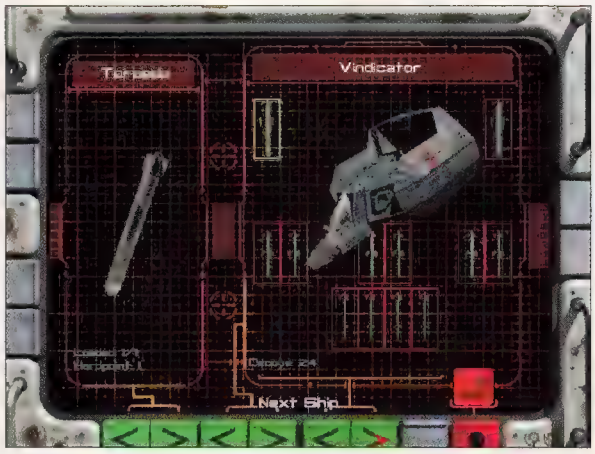
Naturally, a big budget buys some pretty impressive graphics, ranging from black-and-white VGA for lower-end computers (anything less than a Pentium 75) to breathtaking 16-bit Super VGA. Unfortunately, game play is choppy, even on a 120 MHz Pentium with 16MB of RAM and a six-speed CD-ROM drive. In fact, it got so bad that I found myself calling the local computer reseller to price a 166MHz Pentium chip and a new video card with 4MB of RAM.

Despite Wing IV's insatiable hunger for horsepower, the game's logical and interesting mix of missions managed to keep me hooked. Many space-combat sims tend to get dry pretty quick. You find that most missions merely consist of going out and killing whatever enemy forces you encounter, coming back to the base, and then going out and doing the same thing all over again. Pretty soon you lose your zeal to continue the game. But with Wing IV, each mission adds to the story, and is vital to your success.

Wing Commander IV isn't perfect. If you've never played a game like this, it's going to take a little while to get the hang of things. There are many keyboard commands to learn, and a whole universe to try to understand. And though there are six levels of difficulty, from Rookie to Nightmare, I found myself a little annoyed at the exponential leaps of difficulty from level to level.

But these minor irritations should in no way stop you from owning this game. Not only is it likely to be the biggest game of the year, but Wing IV will undoubtedly become a benchmark for future games of this sort.

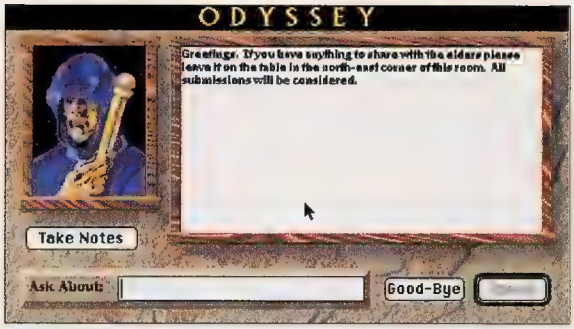
Let your fellow shipmates configure your fighter, or give yourself a custom load of any weapon you choose.



Hollywood names like Mark Hamill and Tom Wilson form the well-cast crew of Wing IV.

Odyssey: The Legend of Nemesis

By Peter Olafson


ODYSSEY
Greetings. If you have anything to share with the elders please leave it on the table in the north-east corner of this room. All submissions will be considered.
Take Notes
Ask About:
Good-Bye

Odyssey surpasses initial expectations.

Don't judge this game by its cover. The dated appearance of Odyssey: The Legend of Nemesis masks a role-playing game of real depth and charm.

Mac gamers find themselves washed ashore on an island brimming with fear and loathing. The antipathy between its two towns seems to have sprung fully formed from someone's head. Naturally, there's an evil third party at work here—perhaps your mysterious host, who signs his cryptic notes "N" and sends you out to solve a series of puzzles.

First impressions: Not so hot. The style of play is prehistoric—Ultima V in 256 colors— and you'll find yourself running endlessly around the countryside in expansive, top-down view, killing twitchy sprites called Green Flesh-Threshers and Slime Mauls, getting killed in return, and trying to talk to people who won't talk back.

But a few extra hours of play is unexpectedly rewarding. Odyssey's strength is in its subtleties: the elegant use of the Mac's desktop conventions and windowing; the lovely character closeups and literate prose; a practical automap; a comprehensive, entertaining manual; the ability to take notes online; and a story that blossoms carefully as your enterprise and courage grow.

Don't misunderstand—Odyssey isn't a classic in the realm of System Shock or Dungeon Master II. But if you can get past the retro design elements, it is a real pleasant surprise. Sometimes, that's enough.

Odyssey: The Legend Of Nemesis
MacSoft
800-229-2714

Platform: Mac CD
Requires: 68020 processor, 3MB RAM, System 7.1, color monitor, Sound Manager 3.0
List Price: $39.99

GAME PLAY:	★ ★ 1/2
GETTING STARTED:	★ ★ ★ ★
GRAPHICS:	★ ★ ★
SOUND CHECK:	★ ★ ★
VALUE:	★ ★ ★

Don't let the plain wrapping fool ya—Odyssey is a solid RPG.

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Connections

PLAY the Demo on the disc

Connections
Discovery Channel Multimedia
800-678-3343

Platform: Win/Mac CD
Requires: PC: 486/33, 8MB RAM, Win 3.1, VGA, double-speed CD-ROM drive; Mac: 68040, System 7.0, 256-color display
List Price: $54.99

GAME PLAY: ★ ★ ★
GETTING STARTED: ★ ★ ★ 1/2
GRAPHICS: ★ ★ ★ 1/2
SOUND CHECK: ★ ★ ★ ★
VALUE: ★ ★ ★ 1/2

If you like chaos, you may not like Connections. Discovery Channel Multimedia's first foray into gaming presents you with the challenge of preventing chaos by solving a set of puzzles. Oh, and you end up learning a fair bit about science along the way.

If this sounds like a formula for dweebs or a sophomore physics class, it's really not. Hard-core gamers will find Connections' puzzles fairly simple, but others will find it an amusing game that transmits its lessons in a surprisingly unpedantic manner.

James Burke, your guide to the Connections of the web.

The game is based on *Connections*, the Learning Channel cable television show about host James Burke's conception of a "web"—the not-always-obvious links among objects and concepts. (For example, the graphite in pencils and the reaction of graphite to X-rays reveal a lot about the structure of crystals—not what you'd expect of a common pencil.) In the Connections game, your job is to fill in gaps in the web by finding and applying objects, often aided by the ghostly presence of Burke, who'll offer a hint or explain a scientific concept. (For an interview with Burke, see "Star Talk," page 16)

In that respect, Connections is a decent puzzler, following the classic formula of roaming the grounds of a medieval castle to build an inventory and applying the items where needed. Some of it is standard stuff—getting a sword that'll convince a doorwarden that you're a knight, for instance. But some of it leans on applied science: To get that sword, for example, you'll have to fix a steam pump to drain a sub-basement that holds the knowledge you need.

Really, though, you don't have to have a Ph.D. to solve the problems. If you're way stumped, the hint system is very liberal (keep asking and it'll eventually *give* you the answer). And if you get the impression that many of the video characters are portrayed by Discovery Channel employees, at least it seems that they're all having cheerful fun—a phrase that aptly describes Connections itself.

—Donald St. John

College Slam

Take the NBA teams and stars out of NBA Jam Tournament Edition and replace them with nameless players on the rosters of 44 NCAA powerhouses, and what do you have?

(a) A seemingly senseless marketing move.

(b) A new appreciation for the personalities of overpaid superstars.

(c) Activision's new College Slam.

The answer: All of the above.

College Slam
Acclaim Entertainment
516-656-5000

Platform: DOS CD
Requires: 486DX2/66, 8MB RAM, DOS 5.0, Super VGA, sound card
List Price: $54.99

GAME PLAY: ★ ★ ★ ★
GETTING STARTED: ★ ★ ★ ★
GRAPHICS: ★ ★ ★ ★
SOUND CHECK: ★ ★ ★
VALUE: ★ ★ ★ 1/2

Unless you look carefully, you might mistake College Slam for NBA Jam. The two-on-two game play is essentially identical, with all the same controls, options, moves, and everything. What's different is that instead of the Bulls, Knicks, and Lakers, you get to play the Red Storm, Jayhawks, and Trojans. (Though 44 teams may seem like a lot, you won't find the Stanford Cardinal, DePaul Blue Demons, Syracuse Orangemen, or lots of others.)

College Slam entertains, but it isn't much different than NBA Jam.

So far so good, but because the NCAA doesn't allow companies to use the names of "student athletes," College Slam simply identifies them by position. On the other hand, it does give them statistical ratings that seem to correspond to the real players. While you can edit the teams to add any name you want and adjust attributes like speed, power, and shooting ability, you can't alter a player's overall stat-point total. You can only change how the attributes are allocated among the eight categories. All College Slam really gives you is the college team colors, logos, fighting songs, and so on, plus the ability to play 4- and 16-team single-elimination tournaments. You don't even get the cheerleaders or the coaches, though the game does display written coaching tips before the second half.

If you love NBA Jam and college hoop, check out College Slam. If you just want to play ball, stick with NBA Jam or EA's excellent NBA Live 96.

—Fredric Paul

THE YEAR 2055...
UNCOVER SECRETS OF THE DEEP... DISCOVERIES THAT MAY CHANGE THE COURSE OF MANKIND OR END ITS EXISTENCE

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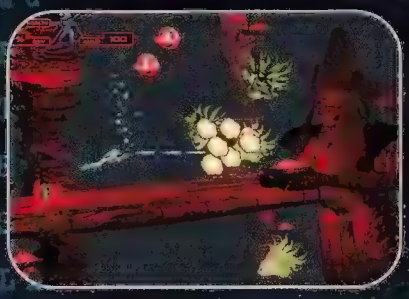

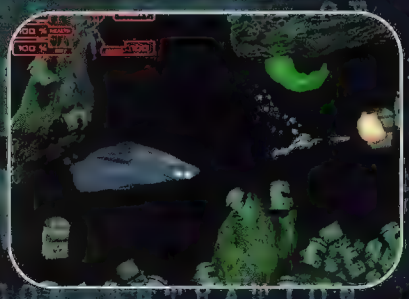
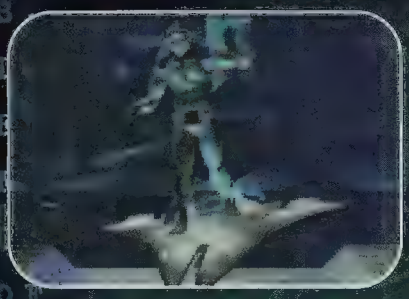
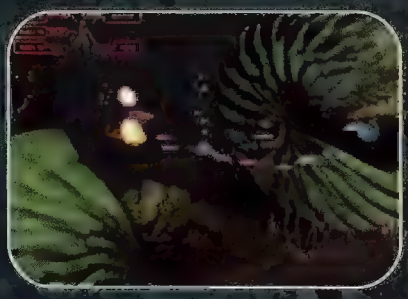

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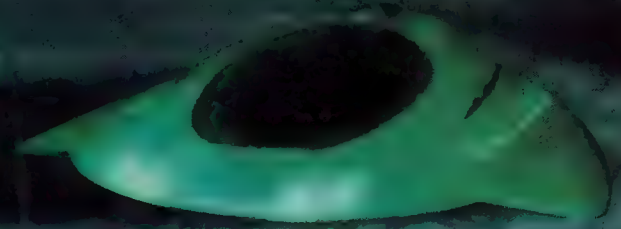
"It's efforts like these that will establish a new 32 bit gaming paradigm."
Next Generation



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SPORTS

ESPN Extreme Games

By Christopher Lindquist

Push hard up those hills.

Ever wanted to send a skateboarder turf-sliding? Now you can.

Get those gates to gain the points!

Mad Max meets Soap Box Derby in Sony's new ESPN Extreme Games, a human-powered, testosterone-driven race to the finish that gives new meaning to the term "road rash."

In the real-life *ESPN Extreme Games*, death-defying road warriors face off in a variety of high-speed television races on diabolically dangerous modes of transit such as street luge, skateboards, mountain bikes, and in-line skates. To compete, you've got to be crazy; to win, you've got to be Charles Manson–class nuts. The computer game version of the event goes even further, adding a combat element as you attempt to turn those who would beat you into greasy stains on the roadside.

Like other recent Sony Interactive titles (see WarHawk, April 1996, page 52), Extreme Games doesn't play as well on the PC as it does on the PlayStation, losing some graphical clarity in the translation. But play itself remains the same.

You choose to run either a 12-race season or a single exhibition race, select your skill level (from Easy to Extreme), and hit the first of five courses. A video-based sportsbabe (well, she may be a babe; it's hard to tell through the badly pixelated video) gives you "hints" before a race, plus words of encouragement or nasty ragging after you perform. Either way, she's worthless—but you can shut her off in the configuration menu.

In the world of Extreme Games, real physics don't apply, so you have an equal shot at winning a race on any of the equipment. But you can upgrade your gear with the money you earn by placing well or by running through green gates placed about the courses. You can also get extra dough by hitting every gate on a course, which will automatically send you to a "bonus course" full of $5 and $10 gates. Other gates give you more "season points" or open secret passages that can help you get ahead.

There's more to winning than just going fast, though. This is cut-throat competition, and the other racers won't just sit back and lose quietly. Every competitor can punch and kick the opposition to knock them off their rides, and you've got to do the same. Pacifists don't get the green in Extreme Games.

But despite all the action and mayhem, Extreme Games doesn't really excite. Unlike most racing games, which let you stomp on the gas to shoot past the other guys, the best way to go fast here is to find a steep hill and go into a tuck. In fact, winning requires spending considerable time figuring out when to depend on gravity alone and when to help it along by peddling, skating, or pushing off. The thrill of jumping over and going around obstacles wears thin pretty quickly, too. So racers may find themselves bored after only a few races.

While the Extreme Games themselves may be over the top, ESPN Extreme Games for the PC falls behind the curve.

ESPN Extreme Games

Sony Interactive
800-438-7794

Platform: DOS CD
Requires: 486, 8MB RAM, MS-DOS 5.0, VGA, double-speed CD-ROM drive, sound card
List Price: $50

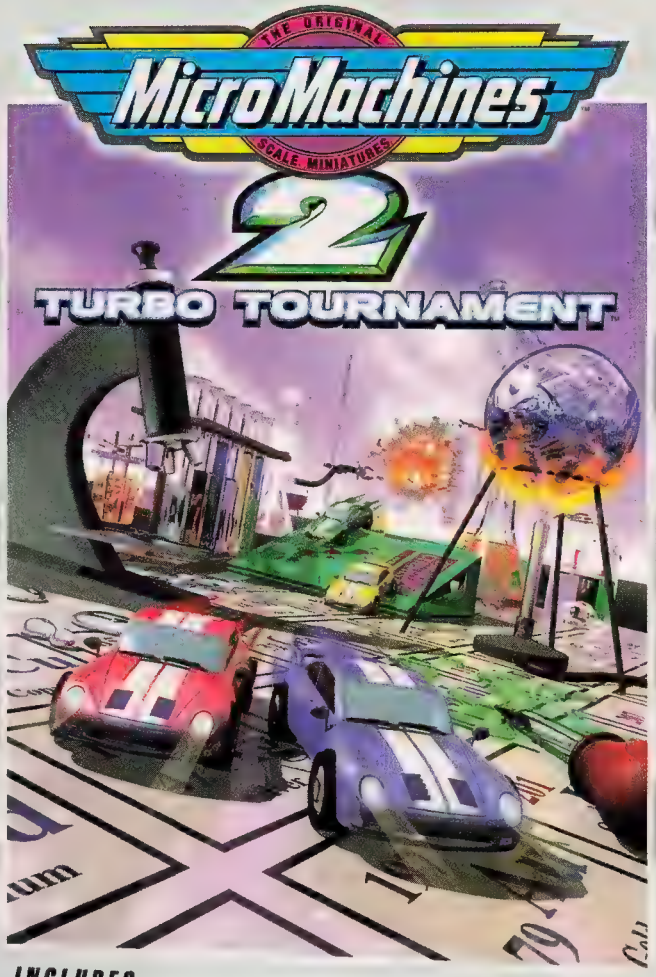
GAME PLAY:	★ ★ ★
GETTING STARTED:	★ ★ ★ 1/2
GRAPHICS:	★ ★ ★
SOUND CHECK:	★ ★ ★ 1/2
VALUE:	★ ★ ★

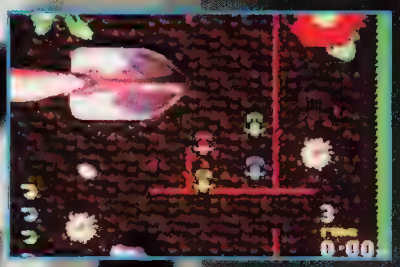
***Road Warrior* on training wheels.**

TIPS

- **Don't bother fighting at the back of the pack. Concentrate on keeping your speed, or you'll never see the leaders.**
- **Get new gear, but try to skip the lowest-level upgrade. You can still do OK—and even win—with your starting setup for the first few races.**
- **After you go through a blue gate, keep your eyes open for secret passages on the roadside.**
- **Keep an eye on your speed. If you notice it dropping, get out of your tuck and start using your muscle power.**

BETTER, FASTER, MEANER...





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Warhammer: Shadow of the Horned Rat

By Barry Brenesal

Protect villages from hordes of Goblin Wolfriders.

Dietrich, your paymaster, will brief you on each mission.

You're Morgan Bernhardt, leader of the Grudgebringer Mercenaries, in a pseudo-medieval fantasy world where evil looms on the horizon. Your foes? Wolf-riding Goblins, Treemen, Stormvermin, Skaven Mole Machines, and even The Horned Rat—Demon God Incarnate.

While Warhammer: Shadow of the Horned Rat may sound like a typical role-playing game, it's not. The more I played it, the more I thought it resembled a football game set in a fantasy world. Not literally, of course: Morgan never kicks a goblin head to make a field goal. But Warhammer approaches the fantasy genre in a fashion you'd expect out of a strategic sports game.

For example, unlike Ultima, Might & Magic, or Wizardry, Warhammer doesn't feature complex plots involving Morgan, and there's no territory to explore, treasure to find, or conversations with computer-driven characters (unless you count mission briefings with Dietrich, your paymaster). Instead, you select an available Warhammer mission, arrive at the battle site, and position your team units.

Warhammer's interface is sharp, but takes getting used to.

Issue your initial orders to each group, and the carnage starts. You shift camera angles in a 360-degree, rotating, scrolling landscape—racing across the field, zooming in and out, altering maneuvers to meet new conditions. Sounds of war advance and recede as you speed across the field of engagement while controlling different troops.

But Warhammer isn't all camera angles and swords. It has much more to offer: archers, cannons, catapults, and even a variety of early Steam Age machinery such as the Gyrocopter (a primitive, one-person helicopter that drops bombs). You'll also find magical potions and weapons and five separate "colleges" that produce their own unique wizards.

With more than 40 challenging missions in a campaign, Warhammer offers a high level of replayability. And thanks to its excellent artificial intelligence, you'll want to play it again and again. The game also boasts more than 50 monster/character types, each with its own distinct strategies based on current objectives, abilities, proximity to goals, and interfering factors. Each type is rated on nine statistics, including strength, movement, and initiative, and all forces automatically improve themselves with each battle kill.

Visually, Warhammer is equally impressive. The artwork is superb, particularly the Books of Magic and Troop Roster. However, the isometric battle animation can be agonizingly slow when running on anything short of a Pentium.

And Warhammer's gleaming, stylized interface—which resembles engraved metal—takes some getting used to. The symbol-based buttons are stacked in hierarchies, so you can't choose "Decrease Number of Ranks" without first selecting "Move" and "Ranks," which takes your attention away from the real-time battle and focuses it instead on the frustrating command process. Mindscape could have used simple keyboard equivalents to avoid this problem.

Thankfully, Warhammer easily rises above these relatively minor complaints. Though it's a bit difficult to learn, the game will draw you in with its style, real-time action, and challenging opponents.

TIPS

- **Protect your wizards above all else: a few well-aimed spells at the right moment can turn defeat into victory.**
- **Take advantage of psychological effects like Hatred, which allows dwarves to recast any blows they miss in the first round of their battles.**
- **Try to retain a single cavalry unit to react swiftly to new enemy threats.**
- **Wherever possible, concentrate multiple forces upon a single enemy unit to wipe it out swiftly.**

Warhammer: Shadow of the Horned Rat

Mindscape
408-897-9900

Platform: Win 95 CD
Requires: 486DX2/66, 8MB RAM, Super VGA
List Price: $50

GAME PLAY:	★ ★ ★ ★ 1/2
GETTING STARTED:	★ ★ ★ 1/2
GRAPHICS:	★ ★ ★ ★
SOUND CHECK:	★ ★ ★
VALUE:	★ ★ ★ ★

Warhammer's excellent artificial intelligence and well-conceived universe will keep you coming back for more.

SpaceBucks

By John P. Withers

Setting up trade routes with your fleet of ships is an art unto itself.

When the star drives quit working in 2300, all trading commerce—and interstellar civilization—ground to a halt. Now, 40 years later, the star drives are working again, and everyone wants to restore the galaxy to its former splendor.

The galaxy's denizens could pool their money and effort into some kind of goody-two-shoes, Starfleet-like affair, exploring and rebuilding out of a sense of civic duty and the good of humanoid kind. But those in command have decided to bank on a more dependable motivation: greed.

Match each race with the luxury good it demands.

Hence, you come into possession of one of four galactic trading licenses, a spaceship, and a need to expand more quickly than the three trading companies competing with you. That's because by the year 2500, the company that's grown the largest gets the monopoly on interstellar trade.

This is the setup for Sierra On-Line's economics simulation/strategy game SpaceBucks. With all the elements of a good galactic-empire sim and a focus on economics rather than military might, this game boasts some serious potential.

Every good space-empire sim offers you a variety of play options at every turn, and while SpaceBucks isn't quite as options-laden as Masters of Orion or Ascendancy, it allows a good number of ways to conduct your basic all-out economic mayhem.

Race selection is the first choice. SpaceBucks' universe contains five races, each with particular tastes. These tastes loom large, since the goal of the game is to set up profitable trading routes. Each race craves a particular luxury good and will pay big bucks to have it delivered. Humans, for example, will gobble Ambrosia (which looks suspiciously like booze) like it's going out of style. The catch is that only one race makes each luxury good, and it is never the one that they demand. Thus, you must develop an empire with a proper balance of races, each producing and consuming the goods of the others.

The game features a number of other options and complications, including Customer Satisfaction, limited Covert Operations, a stock market, and the ability to build better and more complicated trading ships as the game continues and technology improves.

However, for all the apparent complexity and depth, SpaceBucks' economic model is too simplistic. For instance, when a planet demands a particular good, it will continue to demand that good, and pay the same price for it, no matter how much you flood the market. This might seem like a minor point, but it ends up being a real Achilles' checkbook for a game with such potential.

Though it takes a few difficult hours to understand the flow of the economy and trading factors, once you get the idea, that's pretty much it. By following a logical pattern and setting up your trading routes properly, winning is pretty much assured on all but totally impossible maps—even at the Expert setting.

Another strike against SpaceBucks comes with the Win 95 compatibility touted on the box. The game crashed regularly on our high-end Win 95 system, and Sierra's technical support couldn't solve the problem by press time.

Although SpaceBucks has all the makings of a great game, its ledger book runs into red ink on technical and design issues. Hopefully, Sierra will develop a good patch that will pull this simulation out of Chapter 11 and send its stock soaring.

SpaceBucks
Sierra On-Line
800-757-7707

Platform: Win CD
Requires: 486DX/33, 8MB RAM, Win 3.1, Super VGA, double-speed CD-ROM drive, mouse, sound card
Street Price: $59.95

GAME PLAY:	★ ★
GETTING STARTED:	★ ★
GRAPHICS:	★ ★ ★
SOUND CHECK:	★ ★ ★
VALUE:	★ ★

SpaceBucks fails to live up to its potential, cashing out with technical difficulties and simplistic game play.

TIPS

- **Name your ships logically, with route and cargo somewhere in their designations. Once you have 20 ships, it can be almost impossible to find the one you need otherwise.**
- **Play the Tesarians. They not only buy toxic waste at good prices, but will later use it to make Exotic Animals to trade with the Secanii.**
- **Build ships without weapons and shields and surrender during pirate attacks. This saves weapons cost and upkeep, and ensures you can keep using your ships after they're attacked.**

Gearheads

By Bill Meyer

Gearheads combines fast action and strategy.

Not every game is designed on a million-dollar budget. Take Gearheads, for example, a funky war between armies of wind-up toys. This goofy twist on mano-a-mano warfare doesn't rely on Hollywood talent or high-resolution 3-D cinematics. It gets by just fine on straightforward strategic action leavened with a dash of humor.

The concept is simple enough. You take a side and select from 1 to 12 different wind-up toys. Spend a few seconds winding one up, then unleash it across the screen at your opponent's goal. If the toy has enough energy to make the crossing without being destroyed, you score a point. Pretty basic.

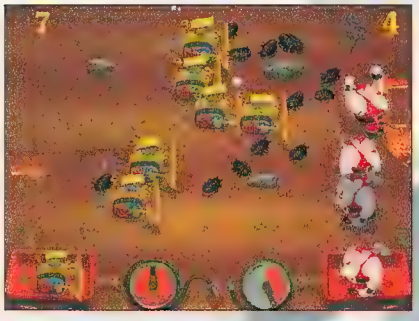
PLAY *the Demo on the disc*

What makes the game interesting are the goofy toys themselves: They're well-conceived, exceptionally rendered, and prone to hilarious animations when coming in contact with each other. Each is endowed with special abilities and characteristics that let you employ an array of defensive and offensive tactics. For instance, an oversized Santa named Krush Kringle is perfect for blocking small, quick toys like Handy—a white glove who can unwind or wind up stalled toys—and Ziggy, a mechanical cockroach. Big Al, a bulldozer, can push marooned toys across enemy lines to earn several points at once, while Zap-bot the robot can shock this same heavy machinery into submission.

Choosing the best toys to counter incoming units and exploit weaknesses in your opponent's overall strategy can be a real challenge, not to mention a lot of fun. To up the ante, there are dozens of playing fields in four environments—kitchen, yard, ice pond, and factory—each with an array of obstacles, including beetles, ice cracks, teleports, and power-ups. Since you're forced to wind each toy and the game occurs in real time, the action gets delightfully frantic.

Unfortunately, Gearheads can get old fairly quickly when you play by yourself. There are three levels of difficulty in tournament mode—which saddles you with a less versatile crew of toys and makes the computer opponent much tougher—but a few key units and basic strategies are enough to win. To get the best from this game, share the keyboard and take on a friend. Only human players can provide the banter and cut-throat tactics that keep the game intense and interesting. Sadly, you don't get network or modem capabilities.

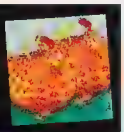
Despite its cute and fuzzy premise, Gearheads is an entertaining little title, especially in two-player mode. You might want to give these wind-up toys a spin.



Multiplayer capabilities might have put Gearheads over the top.

Choose from 12 wacky wind-up toys for head-to-head battles.

Gearheads
Philips Media Games
800-883-3767



Developer: RGA
Platform: Win CD, Win 95 CD
Requires: 486DX/33, 8MB RAM, VGA, double-speed CD-ROM drive, mouse, sound card
List Price: $39.99

GAME PLAY:	★ ★ ★ 1/2
GETTING STARTED:	★ ★ ★ ★
GRAPHICS:	★ ★ ★ ★
SOUND CHECK:	★ ★ ★
VALUE:	★ ★ ★ 1/2

Gearheads is a refreshing twist on head-to-head warfare.

TIPS

- Each toy can exploit the weakness of another toy, so discover the most appropriate counter for each attacking unit. For instance, Disasteroid is invulnerable to all toys except the shocking Zap-bot.
- Try to wind every toy at least halfway: If one dies prematurely in front of your goal, your opponent can push it back across your goal for two points. However, to stop a big attack, you can clog the entrance by quickly dropping several big toys and then pushing the whole morass outward with ones that have been fully wound.
- Create diversions. For instance, send a large force of big toys—like Big Al, Clucketta, and Disasteroid—across the top of the screen and then shoot small speedy units, such as Walking-time-bomb, across the bottom.
- If there's a teleport on the field that drops units in front of your opponent's goal, shoot speedy toys into the opening for quick points. Don't waste time winding them to full strength, since they won't need much energy once released on the other side. To block this tactic, drop big units, such as Clucketta, in front of the teleport opening.

"GAME OF THE YEAR."

SAN FRANCISCO EXAMINER

★★★★

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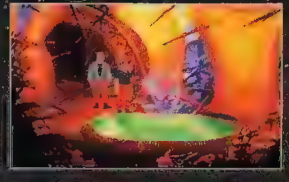
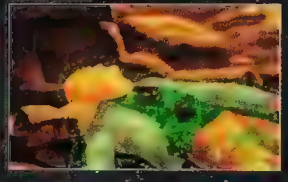
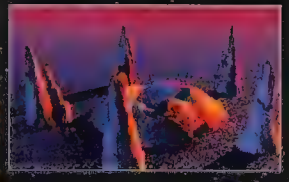
EDITORS' CHOICE

"THE DIG IS YET ANOTHER FUN AND REWARDING ADVENTURE GAME FROM THE MASTERS OF THE GENRE."

PC GAMER

THE GREATEST MYSTERY OF ALL AWAITS.

FOR PC AND MACINTOSH CD-ROM • VISIT THE DIG SITE AT http://www.lucasarts.com

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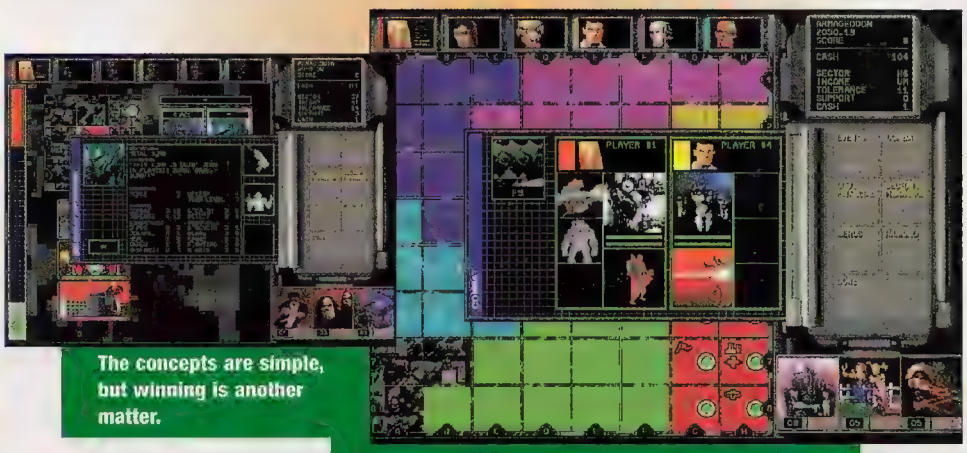
Chaos Overlords

By Barry Brenesal



The concepts are simple, but winning is another matter.

Unleash ruthless gang warfare upon rival Overlords.

In New World Computing's Chaos Overlords, it's the year 2050, and the world government wants to outlaw access to all weapons, drugs, pornography, and communications. Bummer.

Of course, criminals and corporations see this as a terrific opportunity, and the lawlessness of the Prohibition era returns a hundredfold. Hawking illegal items to the masses while greasing the palms of low-level officials, Chaos Overlords run the cities while the world government busies itself with vacuous phrases and vague ideals.

As one of six Chaos Overlords, you battle your rivals using street gangs, weapons, and real estate. Your immediate goals vary from scenario to scenario, but the final equation is constant: They die, you rule. Anything else is unacceptable.

Visually, Chaos Overlords has the futuristic, comic-book look down pat. The rulers and their gangs are properly repellent, and the color scheme ranges from sickly yellow to gun-barrel gray. But then, you wouldn't expect a strategy-based game in a visionary punk-o-rama setting to have 11th Hour–quality graphics, would you?

Cities in Chaos Overlords look like massive chessboards divided into sectors. You control some sectors, others are neutral, and some are governed by rival gangs. Your job, depending on the game scenario you choose, is to gain control of the majority of sectors—enlisting gangs to do your dirty work. Up to six people can play on a network or two can face off with a modem or serial connection.

Getting to the top in Chaos Overlords ought to be easy: Just purchase the service of the best gangs, arm them adequately, and move them ahead sector by sector until the opposition is eliminated, right?

Well, there's a little more to it than that. For one thing, you have to take into account your final objective. Have you set Chaos Overlords for Greed mode? If so, you must accumulate the most cash by game's end. Other modes include Power, Acceptance (where you must persuade all city sectors to provide you with support), and Dominance, which combines all three objectives. There are also special scenarios, like the aptly named Kill 'Em All, in which you must, well, simply kill everyone.

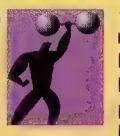
During each turn you can hire one of three available gangs. (As an Overlord, you can control up to 70 gangs.) Each gang possesses a statistical rating for force, upkeep, tech level, combat, defense, stealth, and detection. Gang members also have a series of combat and command skills, including but not limited to research, healing, ranged weapons, and martial arts.

And hey, your boys (and gals) don't usually come equipped right out of the box. The Raving Uzis gang will look pretty silly waving their shirt sleeves at a mechanized regiment, for instance. So as Overlord, you have to spend money researching weapons, armor, and miscellaneous items like medical kits and scanners to supply your minions.

To accumulate cash, your gangs must control new sectors, and then influence up to three "sites" in each sector they control. Sites include broadcast facilities, casinos, headquarters, and so on. Some of these improve an Overlord's sector support, making it harder for another Overlord to grab a piece of the action. Others generate currency, and all carry a resistance factor and tolerance level.

As you can see, Chaos Overlords is no simple game. Like any top-notch strategy product, it's easy enough to grasp the concepts, and New World Computing's documentation is great. But winning is another matter. And given the fact that no two games play alike, Chaos Overlords will prove a challenge to even the strongest armchair strategists.

TIPS



- **Constantly monitor the Financial Information panel under the Main Control Box for cash in hand. If you're in the red, you can't hire gangs. If you can't hire gangs, you might as well move to a rest home.**
- **Don't neglect the benefits of Snitch and Bribe. Snitch causes government officials to reduce the tolerance level of a sector owned by another Overlord, increasing the chances of a crackdown that'll suspend financial support to that sector's Overlord. Bribe raises sector tolerance—for you. Start slow.**
- **Gain control of surrounding sectors to build your income, then hire more gangs to fan out.**

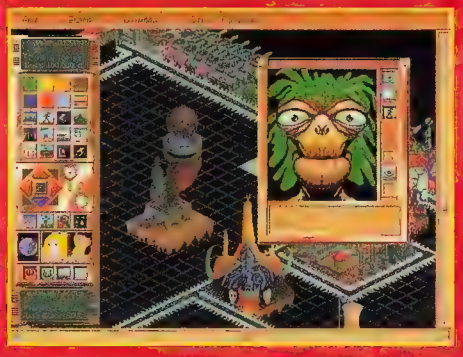
Chaos Overlords
New World Computing
800-325-8898

Platform: Win 95 CD, Mac CD
Requires: PC: 486, 8MB RAM, Super VGA, double-speed CD-ROM drive. Mac: 68030, 4MB RAM, 13-inch monitor, double-speed CD-ROM drive
List Price: $49.95

GAME PLAY:	★ ★ ★ ★
GETTING STARTED:	★ ★ ★ ★
GRAPHICS:	★ ★ ★
SOUND CHECK:	★ ★ ★
VALUE:	★ ★ ★ ★

A very difficult strategy game bolstered by excellent game balance, lots of options, and a punk attitude.

How Do You Imagine HELL?



Earn Pennies From Heaven, party in the Disco Inferno, collect your Eternal Reward — anything is possible in this exciting new sim from LucasArts. As Demiurge, your goal is to set up and manage a successful and profitable afterlife. And if you think it sounds easy, just think who you'll be reporting to...

With more than 250 pages of hints, cheats, and strategies in the *Afterlife Official Player's Guide* you'll learn the heavenly secrets and devilish tricks necessary to master this unique and engaging sim.

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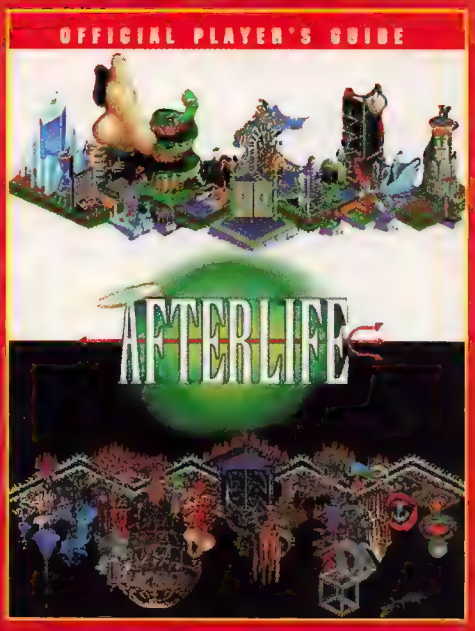
- **A look at the LucasArts techno-magicians behind the game**



CALL TODAY TO ORDER

Afterlife
Official Player's Guide
1-800-360-2228

INFOTAINMENT WORLD BOOKS

Spotlight

Software

STARBOUND

Invisible Universe

Platform: Win/Mac CD
Rating: ★ ★ ★ ★

The distance between Earth and the stars may be, well, astronomical, but with **Invisible Universe**, you'll feel like you're on your way. Hosted by astrophysicist/composer Fiorella Terenzi, Voyager's newest title looks at space through the eyes and ears of a musical scholar.

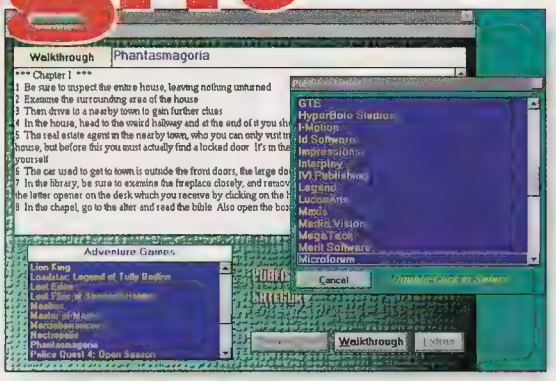
Liftoff occurs on a cosmic backdrop showing the disc's six areas; each includes a brief and fairly useless description by Dr. Terenzi, accessed by clicking on her personal icon. You might start with Celestial Objects, where you can view detailed images of 150 astral bodies and refer to close-ups and explanatory text. In Star Maps, examine maps of stars and constellations connected to pictures and data from various observatories.

What makes this particular astronomy class special is its liberal arts emphasis. A Poetry section features 52 well-known works about the heavens, many of them read by scientists, astronauts, and celebrities ranging from Herbie Hancock to Timothy Leary. The Music category contains an hour of Terenzi's atmospheric melodies, created by translating earthbound radio waves into sound. In Guided Tours—the best, most informative part of the disc—Terenzi leads you through video and diagrams of the Milky Way, our solar system, and other astral sights. Each object is linked to the Celestial Objects section for easy reference. The Movies section, where space footage is accompanied by Terenzi's music, has similar links, and does a nice job of instilling a sense of wonder.

All in all, it's a fun time. Despite repeated images and a few sections' lack of historical data, this mix of soothing music and detailed information is a great way to stargaze. (Voyager; 800-446-2001; $39.95)

–Corey Cohen

Stargaze with astrophysicist/composer Fiorella Terenzi.



Solution CD '96 holds hints, cheats, and solutions for more than 200 games.

FOR CHEATERS ONLY!

Solution CD '96

Platform: Win CD
Rating: ★ ★ ★

What good is a CD-ROM full of game hints, cheats, and solutions when all its supposedly clandestine information is readily available on the Internet? Well, ironically, Microforum's **Solution CD '96** is more about accessibility and organization than content.

Solution CD '96 organizes a vast amount of hints, cheats, and solutions for more than 200 popular games, old and new, in one handy, easy-to-use package. You can access and print this information via one large game list or search Solution's database by category and publisher. Action addicts can easily find Rebel Assault pass codes, while strategy buffs can quickly get the scoop on X-COM: Terror From the Deep without scrolling through huge, alphabetical FAQs or waiting to get on traffic-slowed World Wide Web pages.

The title's hex editor is equally valuable. With this utility at your fingertips (and after a brief lesson on how to use it), you can actually take advantage of arcane hex-edit cheats thrown around online. Solution CD '96 also tosses in saved games for a number of featured games, such as Descent.

From game to game, however, Solution CD '96's information varies in quality, often lacking such important details as overview summaries, release dates, and requirements. It seems Microforum simply poured in whatever copy game makers provided without editing and formatting it. Even worse, Microforum didn't bother obtaining its own descriptions when game manufacturers didn't fill their request for an overview. Instead, the disc tags these selections with a lame "Sorry, no overview available." How did Microforum provide tips for these games if it didn't even know what they were about?

If you regularly scour game magazines and online game resources, Solution CD '96 won't add much to your knowledge. But if you want to find all your hints in one place, it might be worth a look. (Microforum; 800-685-3868; $49.95)

–Bill Meyer

Your computer dispenses design inspiration with Living Home.

LIFESTYLE MAGAZINE

Living Home

Platform: Win/Mac CD
Rating: ★ ★ ★ ★

Look out for a new shelter magazine on the CD-ROM rack: **Living Home**, by San Francisco–based Novo Media Group. We loaded up the premiere issue, a cross between *Architectural Digest* and *Better Homes and Gardens*, for a taste of what this elegant lifestyle periodical has to offer.

The annual subscription includes four CD-ROM issues of Living Home, access to the Internet through a trial membership on MCI, five free hours of Internet access, and a link to the magazine's Web site. Like a print magazine, Living Home has regular departments: Home Enhancement, Gardener's Journal, Living Home Planner, and What's Hot. The Gardener's Journal, for example, highlights a beautiful cottage garden, an interview with its creator, and the details that made it possible, including a run-through of composting in all its glory. Each piece is enhanced by smooth-running video clips.

You also get feature stories like the premiere's excellent "Dream Kitchen." This interactive exercise goes beyond print mags to give you a selection of tiles, countertops, veneers, and wall colors with which to redecorate a kitchen. You can't change the room's layout, but it's still a thrill to see the computer quickly implement your choices to change the look of this virtual environment. Meanwhile, "Dueling Designers" take aim at the setup and decor of a sample room. Although you can't leaf through this magazine, its interactive features offer an alternative to print media, while the online access makes up for its quarterly publishing schedule.

Living Home's Web site resembles the CD-ROM: stylish and informative. You'll find chat rooms for home and garden information and links to other sites. The Web content relates to the disc, but doesn't duplicate it. (Novo Media Group; 800-852-1480; premiere issue $14.95, annual subscription $39.95) *–Joy J. Ma*

Dinner time in Baghdad-by-the-Bay.

FROMMER'S GUIDES

San Francisco

Platform: Win CD
Rating: ★ ★ ★ 1/2

CD-ROM travel guides are getting better all the time, partly because travel experts are starting to replace the multimedia gurus who used to put these discs together.

The latest big name to go digital is Frommer's, with its **Interactive Travel Guides**. We checked out the San Francisco edition, but Boston, New Orleans, and New York are also available, with more on the way.

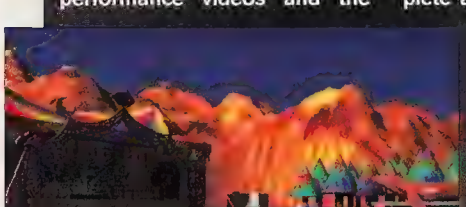
An attractive interface leads to all the info from the printed guides–restaurants, hotels, excursions, night spots, and so on. There are also some supplemental Yellow Pages–style listings and photos, available only via the search function. And you get a decent number of good-quality video clips, though they run in a fairly small window. Other extras include direct access to online updates via America Online and an integrated planner to create your own itinerary, complete with reference info.

On the down side, the title's so-called "interactive maps" are too

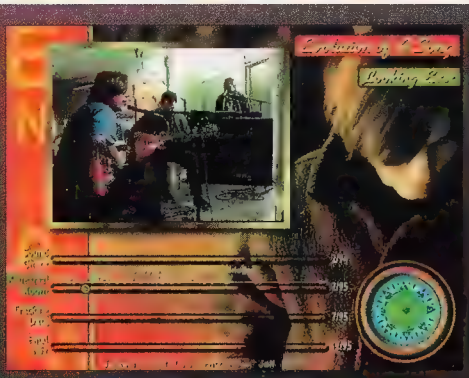
NEW ENHANCED CDS

The Music Box

Enhanced CDs certainly want to live up to their name, and **All Access: The HORDE Festival CD-ROM** does a pretty good job of it. This two-disc set is a look at the "hippiecore" bands (Blues Traveler, the Dave Matthews Band, and others) who team with such acts as Ziggy Marley and the Melody Makers and Sheryl Crow to mount a yearly summer rock tour. The first disc lets you visit tents with activism groups, microbrews, and food recipes, travel a "psychedelic" forest, and scan the grounds. Find a VIP pass, and you can go backstage for interviews and info on more than 40 HORDE bands. The second disc has live-performance videos and the audio tracks. Visually, Access is destined to look as dated as original hippie album covers, but the discs do convey a solid sense of the bands and offer a ton of playing time. (Philips Media; 310-444-6100; $34.99)
Rating: ★ ★ ★ ★


The main stage and psychedelic forest at the virtual HORDE festival.

Jackson Browne's **Looking East** takes an interesting approach: Browne guides you through the evolution of the title track, from its inception as a loose soundcheck jam through rehearsals and recording to the finished song. Comments by band members, song-structure comparisons, and video of the various stages give you a real sense of what it takes to complete a tune. However, it's also a bit clinical, as is the detailed Apple QuickTime VR tour of the recording studio. The adjacent rehearsal studio, where such items as a John Lennon picture and stacked painting canvases might have given you a better sense of Browne as a person, goes unexamined. Pity. (Elektra Records; $19.98)
Rating: ★ ★ ★ 1/2


Jackson Browne takes his band through "Looking East" rehearsals.

Country music's first full-length enhanced CD, **Highway 101 & Paulette Carlson Reunited**, resembles a friendly Nashville Network television profile. Highway 101 was one of last decade's most successful country acts before Carlson went solo in 1990, and the video interviews show a genuine warmth among old friends who haven't seen each other for a while. Scrapbook photos, song lyrics, and an easily navigable design fill out the picture. It's not the deepest multimedia CD out there, but fans will have every reason to love it. (WillowTree Records/ Intersound; 800-945-3059; $12.98)
Rating: ★ ★ ★ 1/2

Leave it to the ever-experimental Pere Ubu to throw some curveballs into the multimedia music process. **Folly of Youth** has many of the things you'd expect on an enhanced CD: QuickTime videos, a discography, and the Ubutique for merchandise. But it throws a lot more into the mix. How about a mix-and-match program that serves up enigmatic lyrics from different songs, a line at a time? Contract riders? Band policies? Folly of Youth shows what it takes to keep a modern band functioning–and how much singer David Thomas really gets this multimedia stuff. (Tim/Kerr Records; 503-236-0013; $13.98)
Rating: ★ ★ ★ ★ ½

–Donald St. John

This Beat Pad takes you all over The Beat Experience CD-ROM.

small to be of much use. Though you can print them out, in doing so you lose whatever interactivity they had. Worse, bland descriptions won't help you make decisions about what to do and see. But the cardinal sin? Not enough information. Despite 650MB of disc space and claims that it's the most comprehensive travel source around, the guide's listings remain sketchy and incomplete. The San Francisco version, for example, reviews fewer than a dozen Chinese restaurants, and only one Mexican eatery. *Ay caramba!* (Macmillan Digital USA; 800-910-0033; $39.95) *–Fredric Paul*

TIME CAPSULE

The Beat Experience

Platform: Win/Mac CD
Rating: ★ ★ ★

If you throw spaghetti against the wall and it sticks, it's done–but you're probably not going to eat it. That's essentially what happened to **The Beat Experience** from Voyager: Too much material got thrown at the wall, and the result isn't all that appetizing.

The Beat Experience is really a lot of good little CDs rolled into one big mish-mash. It covers the Beat era of Jack Kerouac, Allen Ginsberg, William Burroughs, and their contemporaries very ably, with many familiar but well-handled audio, video, and text selections. You also get a peek at underground films, generous cuts of the jazz that served as the Beats' background, and plenty of art, political context, and cultural video.

But this disc lacks focus. It's too ambitious: There may be threads linking the poetry of Ginsberg, the jazz of Charlie Parker, the music of the Grateful Dead, the films of Kenneth Anger, and the art of the New York School, but just try to find any weave among them. Many of the art forms on the disc may have been influenced by the Beat experience, but are inescapably tangential to it.

On top of that, much of the material lacks explanation. Commentary on the writers and jazz musicians is fabulous, for example, but there's none on the art pieces.

For a taste of the dangerous underground of the '50s, The Beat Experience is fine, but it doesn't provide a definitive understanding. (Voyager; 800-446-2001; $39.95) *–Donald St. John*

SPEED UP YOUR CD-ROM

d-Time Mac

Platform: Mac CD
Rating: ★ ★ ★ ★

When it comes to CD-ROM drives, what matters most is raw speed. Ballard Synergy's **d-Time Mac** can actually help Mac users get better performance.

The whole process starts with a simple, pain-free installation that benchmarks your machine's CD-ROM drive and installs the accelerator software. The program uses a "remembrance" system that allows it to quickly punch in frequently used data so it can go back and find information very quickly. Thus, while discs that don't repeat data may not get much of a speed boost, repeaters do real well.

We ran a before-and-after test using a Mac Centris 610 running an enhanced CD that was giving us some performance trouble. A load that previously took 62 seconds and served up choppy performance was up-and-running in 45 seconds, with smooth loading and seamless play. Hey, we'll take that any time. (Ballard Synergy; 360-598-2456; $50) *–Donald St. John*

COMPUTER COMICS

Reflux: The Threshold

Platfrom: Win CD
Rating: ★ ★ ★

Surprisingly, comic books have yet to make a fully successful jump to multimedia. Reflux represents the first step in the right direction, mixing standard page-and-panel artwork with live-action video, audio, and animation.

Each of the first two quarterly "issues" of **Reflux**, the newest of which is subtitled The Threshold, features a 20-page comic displayed page by page on the screen. You read the page as you would a regular, printed comic, then click on certain panels to watch the art transform into a video clip of the action. Unfortunately, the clips are merely snippets from low-budget Chinese martial-arts flicks. Click on characters or objects in other panels to see animated morphs or bring up more detailed information.

You can follow Reflux's plot from the perspective of three characters. Which one you choose alters the dialogue you hear and the tone of the storyline. A moody jazz soundtrack adds to the title's dark, future-noir atmosphere.

Reflux isn't dynamic enough to propel itself forward issue after issue–you can't alter its storyline, for example. But comic-book enthusiasts eager to see the medium's first serious translation into multimedia should check it out. (Inverse Ink; 800-771-1344; $19.99 each or $69.99/yearly subscription) *–Daniel Morris*

THE SIXTH TIME AROUND

U.S. and World Atlas

Platform: Win/Win 95 CD, Mac CD
Rating: ★ ★ ★

Trivia nuts, armchair travelers, students of culture, take note: two more multimedia atlases

Each of Reflux's 20 pages gives you several live-action options.

The New F-16 Series. When failure is not an option.

Visit our web site! http://www.chproducts.com for product compatibility info with Windows 95

F-16 CombatStick
14 functions. Programmable when used with the Pro Throttle.

F-16 FlightStick
4 button joystick

CH Throttle
12 programmable functions

Pro Throttle
20 programmable functions. Makes other standard joysticks programmable as well. Available for PC and Mac.*

F-16 FighterStick
20 programmable functions. Available for PC and Mac.*

CH Pedals
For Flying and Driving. Available for PC and Mac.*

Virtual Pilot Pro
For Flying and Driving. Available for PC and Mac.*

Ok, so the F-16 Series of controllers from CH Products costs a couple bucks more than the cheap stuff. But this is war, and a failed flight controller means sudden death. The F-16 Series and Throttle Line deliver the excitement of a real Falcon cockpit. They're made to stay in the fight long after others have bought the farm. A three year warranty proves it.

The F-16 FighterStick offers easy point-and-click programming. Add the Pro Throttle to the CombatStick, and you can fight with both hands without ever touching the keyboard. Both throttles work with all CH joysticks, and most other controllers, too. Plus, they improve the game play of your favorite robot, combat, space or flight sim software.

So fly on over to your computer retailer and grab onto the most advanced and sensitive controls you'll ever use. Or get accustomed to getting missiles up your tailpipe.

All products pictured here are compatible with MS-DOS and Windows 95. Specific Windows 95 drivers are under development for the F-16 Combatstick, Virtual Pilot Pro, CH Throttle, and Pro Throttle to make them fully compatible.

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*The Mac version may have slightly different options.

CH PRODUCTS

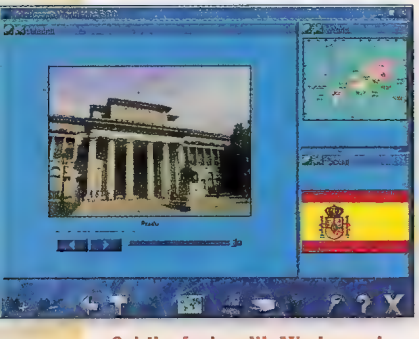
Spotlight

have entered the running.

With their cleaner, easier-to-use interface, the newest versions of Mindscape's Atlases make a decent first impression, and nice companion pieces. Pop in either one and you'll see three control screens that let you access several areas at once. The only question now is what to see, hear, or read.

With **U.S. Atlas & Almanac**, you can look at country, state, or city maps to view topography, highways, satellite views, or various statistics. Or read detailed descriptions of the country or its states. Pop in the **World Atlas & Almanac** and you've got similar options. For the purely geographic, there're maps of the world, its countries, regions, and cities. Want to learn more about a particular place? Read specific information and stats on countries and cities, or see the flags of various countries.

When the hard facts get boring,



Get the facts with Mindscape's updated U.S. and World atlases.

Mindscape gives you sound and video. Depending on which disc you're viewing, you can listen to the anthems, pronunciation, or phrases of various countries or the 50 states. If you'd like to see the places themselves, check out each disc's narrated video tours—roughly one minute each—of cities, states, or countries.

Of course, there are a few extras, like currency conversions on the World disc and time-and-distance travel calculations. Add it all up and you've got two fairly handy reference tools. Those interested in a more engaging—if less statistics-based—look at the world, however, will want to go with Electronic Arts' beautiful 3D Atlas or Microsoft's Encarta 96 World Atlas. (Mindscape; 800-234-3088; $39.95 each)—*Corey Cohen*

PART THREE
EXPANSION AND EXODUS
Brothers --- My people wish for peace; the red men all wish for peace; but where the white people are, there is no peace for them, except it be on the bosom of our mother.
Tecumseh, Shawnee, ca.1811

The Native Americans will teach you history you probably didn't learn in school.

WHEN CULTURES COLLIDE

The Native Americans

Platform: Win/Mac CD
Rating: ★ ★ ★ 1/2

Take a sobering look at U.S. history with **The Native Americans**, which retells the story of "how the West was won" through the eyes of the people who lost. The disc combines a wealth of artistic and historical material with the text of Turner Publishing's best-selling book and excerpts from the WTBS TV series of the same name.

The title uses paintings and photographs from well-known and rare collections to illustrate topics ranging from myths of origin to Reagan-Bush Native American policies. It's divided into five main chapters: The World As It Was, Blending Worlds, Expansion and Exodus, Long Threads, and The 20th Century and Beyond.

The chapters are further broken down into graphically illustrated topics that scroll by in an automatic slide show unless you click on a subtopic from the accompanying illustration or its icon at the bottom of the screen. You can easily return to your starting point by clicking on the thumbnails that appear at the top of the screen. Or use the index to search for topics of your choice.

The Native Americans' detailed content provides an overview of the lifestyle, tradition, and practices of the more than 50 Native American tribes. The moving stories of leaders such as Sitting Bull, Cochise, and Captain Jack hint at the greater tragedy endured by their peoples, who also suffered from Old World diseases and displacement from their ancestral lands.

The title could use a way to zoom in on the beautiful paintings and photographs: the Macintosh viewing area is particularly small. Although not as entertaining as Microsoft's star-studded 500 Nations (hosted by Kevin Costner), the dense Native Americans is more detailed and makes an excellent resource for both students and history buffs. (Philips Home Media; 800-883-3767; $39.95)—*Joy J. Ma*

ART HOUSE

Masterpiece Mansion

Platform: Win/Mac CD
Rating: ★ ★ ★

Philips joins the cultural crowd with a new title that takes a different approach than most multimedia titles about artists, museums, and art history (see "State of the Art," April 1996, page 34). **Masterpiece Mansion** makes a game of introducing you to 150 famous works of art.

You are trapped in the infamous Fouffenfester mansion, a maze of ten well-appointed and mysterious chambers. To get out, you must earn passage from room to room by answering questions and solving puzzles about the works of art displayed there. These activities range from identifying painting styles and selecting true statements about an artist's life to word searches and slider puzzles. This variety makes things interesting, and if you don't like a certain type of activity, you can skip it, provided you earn enough points with the other works of art.

That's easier said than done, though, especially if you don't do your homework. To successfully complete an activity, you'll most often need to take a detour (by clicking the associated icon at the bottom of the screen) to the separate Art Period Explorer program that Philips includes on the disc. Here you'll find brief overviews of various art periods, timelines, biographical information, and additional works. Unfortunately, if you fail to earn enough points to proceed to the next room, the game abruptly ends and you must restart from the beginning—repeating the same activities.

If games aren't your forte, you can launch the Art Period Explorer independently of Masterpiece Mansion. But taken straight, this disc doesn't measure up to top-notch art titles such as Montparnasse Multimedia's Le Louvre and Corbis' A Passion for Art. None of the separate sections are linked, you can't zoom in on works, and the information is somewhat brief.

Forgery Detective
Original Painting
Only ONE of the four paintings on the right matches the original. Click on it for 10 points.

You'll need art smarts to escape Masterpiece Mansion.

Combined with the game, though, it's a fun way to teach kids or adults about fine art. (Philips Media; 800-883-3767; $39.99)

—*Christine Grech*

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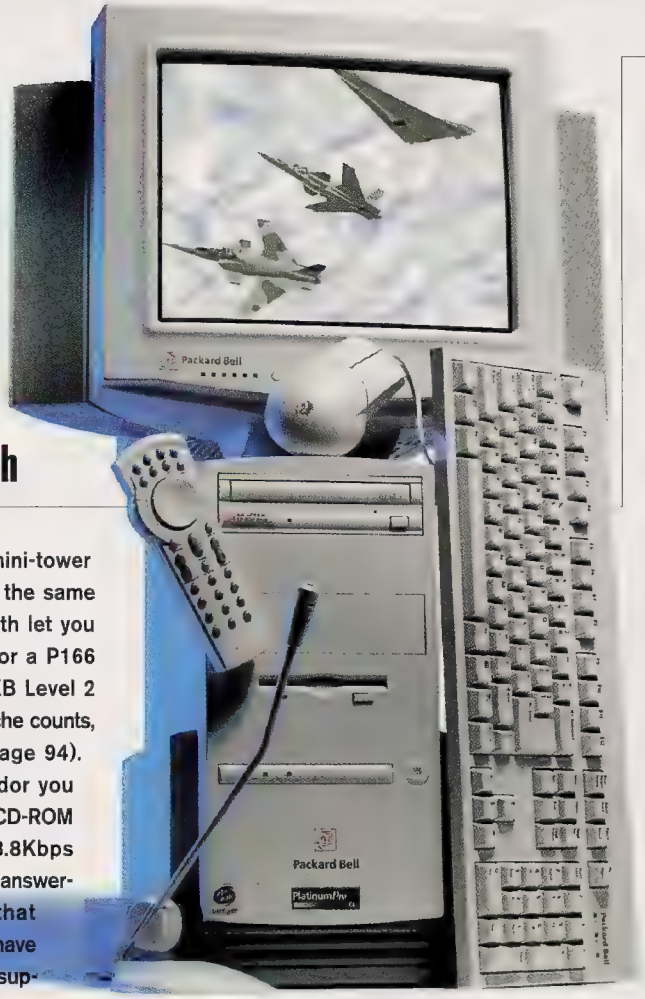
TECH SHOP



Packard Bell's Platinum Pro boasts 24MB of RAM.

Fast Pentiums Face Off

By Christine Grech

To really get the most out of hot new games like Advanced Tactical Fighters or The Hive, you need a *fast* PC. Just because a machine has a Pentium doesn't mean it can keep up. Anything less than a 150MHz or 166MHz model with a 6X CD-ROM drive and at least 16MB of RAM will drop animation frames and force you to select lower/detail settings.

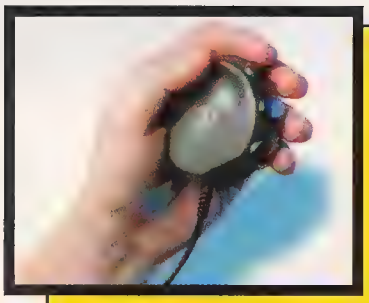
Speed's costly, of course, but not as much as you might think. With AST's new **Advantage! 800** line and Packard Bell's new **Platinum Pro** computers, you can buy a state-of-the-art PC for less than $3,000. The only question is, which one?

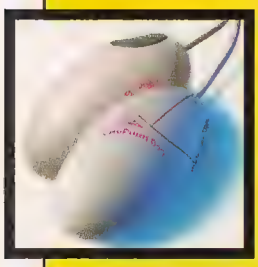
A quick glance won't reveal many differences between the two mini-tower lines—they share many of the same features. For example, both let you choose between a P150 or a P166 configuration with a 256KB Level 2 cache (for more on why cache counts, see "Memory Matters," page 94). Regardless of which vendor you choose, you also get a 6X CD-ROM drive, 2GB hard drive, 28.8Kbps fax/modem with telephone answering system, speakers that mount on the monitor and have 3-D sound, MPEG software support for full-motion video, and even a gooseneck microphone. In addition, you get similar software utilities, such as AST's Spot system and Packard Bell's Navigator, and the companies provide the exact same voice-command systems and services, VoiceView and Talk Shop. Each package has a standard one-year warranty, though neither sub-$3,000 price tag includes a monitor (a

PHOTOGRAPHS BY WEINBERG & CLARK

Piece by Piece

	AST Advantage! 826/828	Platinum Pro Pentium 150/166
Company	AST Computer; 800-876-4278	Packard Bell; 800-733-5858
Configuration	Mini-tower	Mini-tower
Processor	Pentium 150/Pentium 166	Pentium 150/Pentium 166
Cache	256KB Level 2	256KB Level 2
RAM	16MB	24MB
Hard Drive	2GB	2GB
CD-ROM Drive	6X with three-disc changer	6X
Sound Card	16-bit Sound Blaster wavetable	16-bit Sound Blaster–compatible
Speakers	Labtec 10-watt with Spatializer three-D	15-watt mountable speakers with SRS
Video Card/Video RAM	PCI ATI Mach 64/1MB DRAM on 826 and 2MB on 828	PCI 1MB DRAM
Modem/Telephone answering/ speaker-phone features	28.8Kbps fax/modem with telephone answering/ speaker phone	Answering machine and speaker phone, 28.8Kbps fax/modem with telephone
Company Shells and Utilities	AST Spot	Packard Bell Navigator
Entertainment Bundle	7 multimedia titles, 2 games	13 multimedia titles, 5 games
Extras	gooseneck microphone and spare magazine for CD-ROM drive	gooseneck microphone, remote control
Warranty	1 year	1 year
System Price	$2,699/$2,899	$2,599/$2,899
Price for 15-inch monitor	$400	$399
Total Price	$3,099/$3,299	$2,998/$3,298
Good News	Name-brand components and wavetable sound	More memory, easier upgrades
Bad News	Disc changer is inconvenient and doesn't automatically support multidisc games.	FM synthesis sound, no-name components





Free-Floatin'

Neither the Platinum Pro nor the AST Advantage! 828 comes with joysticks or other cool controllers, but there are lots of funky new pointing devices on the market, and the latest don't need a tabletop to do their thing.

Forte Technologies' **CyberPuck Virtual Reality Game Controller** is essentially a hockey puck–shaped, three-button, handheld joystick for PCs. It connects to your computer's joystick port and you hold it in either hand to play any joystick-enabled game. You control forward-back and side-to-side motion by simply moving your wrist. We fired it up with MechWarrior 2 and had no trouble playing, other than a slightly tired wrist after a while. The CyberPuck's not the equal of a good joystick, but the different experience is refreshing. The unit comes with several other game demos, including Magic Carpet and Apache. (Forte Technologies; 716-427-8595; $59.95)

Would that the **GyroPoint Desk Mouse** was as good. On a mousepad, this PC and Mac device is a perfectly fine mouse, and we certainly appreciated not having to load special drivers. But the real idea behind the GyroPoint is to control the cursor without being confined to the desktop. You're supposedly able to hold the GyroPoint in mid-air, but try as we might, we couldn't manage to muster fine control of cursor movement or placement. Using the GyroPoint's stop-and-go functionality (which lets you freeze your cursor until you decide where to move it) helped a bit, but not nearly enough to make it ideal for games or productivity. (Gyration; 800-316-5432; PC, $149; Mac, $159) *—Donald St. John*

CyberPuck Virtual Reality Game Controller
Platform: PC **Rating:** ★ ★ ★

GyroPoint Desk Mouse
Platform: PC/Mac **Rating:** ★ ★

The AST Advantage! 828 comes with a three-disc changer.

15-inch screen tacks on an additional $400).

But, as they say, God is in the details. And here's where the trade-offs get interesting: Would you rather have 8MB more memory or a spiffy three-disc CD-ROM changer? The choice is yours, as the Platinum Pro comes standard with 24MB of RAM while the Advantage compensates for its still-adequate 16MB complement with a disc changer.

More differences: The AST uses name-brand components like a Creative Labs Sound Blaster wavetable sound board, Labtec speakers, and an ATI Mach 64 video card (with 1MB of VRAM on the P150 and 2MB on the P166). The Packard Bell's sound is only 16-bit FM synthesis and its motherboard VRAM tops out at 1MB.

Software might also sway your purchase. The Advantage gives you a full-fledged word processor, spreadsheet, and database with its Lotus SmartSuite, but is skimpy on the multimedia and games. The Platinum Pro does a bit better on the entertainment side, providing twice as many titles, including the Journeyman Project, the Microsoft Entertainment Pack, and Encarta 96.

We looked at a pre-production model of the Advantage! 828 (the P166) and a shipping model of the Platinum Pro 150. In our tests of the latest games—including multidisc titles like The Beast Within and Panic in the Park—both machines performed well. Of course, the 166 provides a bit of extra punch. But whatever processor you choose, you'll find the Packard Bell's extra 8MB of RAM delivers more gaming gusto than the Advantage's disc changer.

The disc changer may sound like a good idea, but it's actually kind of inconvenient. That's because it uses a removable magazine that requires you to pull out each shelf and awkwardly load the CD-ROM label-side down. It's nice to have access to three titles at once, but you don't reap any benefits in multidisc games, since the drive can only switch CDs when you run the included Smart CD Manager software and "mount" the next disc to Drive D. Switching discs while playing The Beast Within, for example, takes more time than it would to swap CDs the old-fashioned way.

The Packard Bell also has an edge when it comes to upgrading. The Platinum Pro's case is a snap to open (just three screws). Once you remove the cover you'll have clear access to five expansion slots. The AST is a bit trickier, with its industrial-looking plastic screws that loosen but don't come off all the way. Even after you remove the case, you'll have to turn the system on its side to insert cards into its five slots. To its credit, though, the AST is cleaner and more spacious inside, especially in the area surrounding its four vacant drive bays.

So, which way to go? Ultimately, that depends on your needs. For our money, we'd rather have the Packard Bell's extra RAM than the three-disc "convenience" of the Advantage. But if wavetable sound and name-brand components matter to you, go for the AST. You can't really lose either way. ■

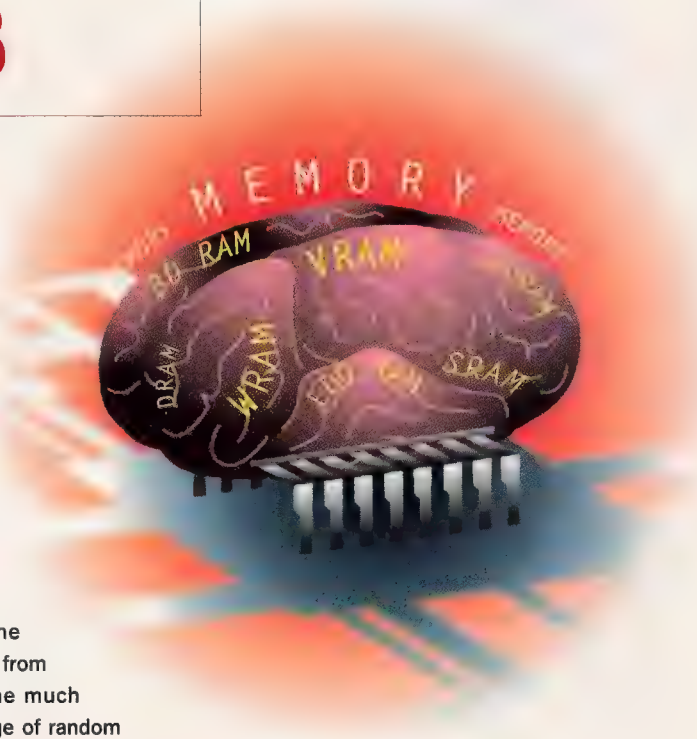
Packard Bell Platinum Pro 150/166
Platform: PC
Rating: ★ ★ ★ ★ 1/2

AST Advantage! 828
Platform: PC
Rating: ★ ★ ★ ★

TECH SHOP

By Patrick Marshall

Memory Matters



God gave us memory so that we might have roses in December," British playwright J.M. Barrie once quipped. Well, Intel gave us a different kind of memory so that we could summon roses—not to mention entire civilizations, menacing adversaries, and all the other stuff our favorite games are made of—to our computer screens at any time of the year.

While human memory is more subtle and complex than the PC kind, computer memory comes in a lot more flavors: SRAM, DRAM, EDO, CDRAM, and many others. This alphabet soup is a tough code to crack, but it's critical if you're looking to upgrade or shopping for a new system and want to make sure you get the performance you're paying for.

RAM, of course, stands for *random access memory*. But what are all those other letters? Unless you're a computer engineer, reading explanations of the differences in memory architectures is one of the quickest and surest routes to a headache. You probably don't care how EDO memory works differently than DRAM. What you really need to know is which type of memory best suits your needs. And it wouldn't hurt to learn just enough of the lingo to sound like you know what you're talking about when you talk to that salesperson at CompUSA.

OK, here goes. First, there are three basic types of memory in your computer: system memory, video memory, and processor cache memory. We'll explore each type, explaining the different memory technologies used for each. Bear in mind that this quick primer is in no way exhaustive. There are also a host of emerging technologies—with even faster performance and equally obtuse acronyms—being developed for the next generation of systems.

System memory

System memory is where your data and programs are stored while you're using them. When you first turn on your computer, for instance, your latest saved game of Duke Nukem resides as magnetically stored data on your hard drive. When you launch Duke, the computer loads the game's executable file from the hard drive into the much faster electronic storage of random access memory.

If you don't have enough RAM to hold all of a game and its data files, some parts may be stored in "virtual memory," which actually means they're kept on the hard drive but treated as if they were in RAM. Unfortunately, it takes a lot longer to grab data from the hard drive than from RAM. So, if you frequently see your system pausing with the hard drive light twitching on and off, it's likely you don't have enough RAM.

While the amount of RAM you have makes a big difference in performance, so does the *type* of RAM.

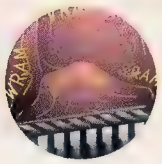
DRAM Dynamic RAM is the standard type of memory chip used in PCs. It's called "dynamic" because the sequence of electric charges that represent data in the chips must be continually refreshed by the computer. Most DRAM used on new systems offers access times (the time required to find and deliver stored data when the processor calls for it) of 60 to 80 nanoseconds.

FPM Fast Page Mode RAM is actually the type of DRAM most often found in computers today. It's basically standard DRAM with a little extra logic included on the chip that "guesses" that if you want to retrieve one bit of data from a specific location in RAM, you'll probably also want the next bit in order. Since the FPM memory doesn't wait for a specific command from the CPU to offer the next bit, its response comes more quickly. The problem is, if the CPU runs too fast—faster than 33MHz—FPM RAM can't keep up with the flow of requests.

EDO DRAM Enhanced Data Out DRAM supplements traditional DRAM with a buffer that holds CPU requests while the DRAM fetches data. These buffers solve the problem of dealing with CPUs running faster than 33MHz. You can expect EDO performance gains in the neighborhood of 10 to 30 percent over regular DRAM.

And you can look for even better performance from "burst mode" EDO DRAM, which should appear in some newer systems this year. Burst mode EDO DRAM will deliver data to the microprocessor nearly four times as fast as standard EDO DRAM. Or rather, you can expect these gains if your system doesn't have cache memory for the processor. Since a Level 2 processor cache (see definition below)—which is provided with most, if not all, 486 and Pentium computers—caches data from DRAM, EDO DRAM's ability to buffer processor requests is often unnecessary. If the data the processor is seeking is already available in the cache's faster SRAM, it doesn't matter how fast or slow the

ILLUSTRATION BY ANTHONY LUKBAN



DRAM is. In fact, EDO DRAM is used by some laptop manufacturers as a lower-cost replacement for Level 2 processor caches.

SRAM Static RAM gets its moniker because the sequence of electrical charges that represent data in SRAM chips does not have to be continually recharged. Static RAM is significantly faster than DRAM, with access times of just 10 to 20 nanoseconds. Unfortunately, SRAM is also a lot more expensive than DRAM, and since it requires more transistors in each chip to store data, SRAM has a lower capacity per chip. Accordingly, SRAM shows up mostly in niche roles that require small quantities of fast memory, such as cache memory for processors and system memory for some handheld computers.

CDRAM Cached DRAM, also known as Enhanced DRAM, carries a small SRAM cache right on the DRAM memory chip. If the data the CPU is seeking is still in the onboard cache, it can be delivered more quickly than if it has to be fetched from the slower, though more capacious, DRAM.

Video memory

Some less-expensive graphics adapters use plain old-fashioned DRAM for video memory, but DRAM is too slow to keep pace with faster systems. Accordingly, graphics "accelerators" use a variety of other, more expensive memory chips designed specifically for the heavier demands of moving graphics.

VRAM The most prevalent type of memory used in graphics accelerators is VRAM, or video RAM. Unlike DRAM, which has a single port through which processor requests and data must be delivered from the memory chip, VRAM sports a dual-port architecture that is designed to move data out to the screen more quickly. VRAM's dual ports don't double the chip's performance, but they do significantly improve the speed of screen draws, especially at higher resolutions and color depths.

WRAM Windows RAM is a dual-ported memory chip that also includes extra logic specifically designed to speed the drawing of graphics. The additional mini-processors on WRAM chips allow the adapter to more quickly create two-color pattern fills and BitBlts, screen-drawing operations commonly used in animations and games.

3D RAM Another emerging technology of special interest to gamers, these memory chips carry even more logical processing than WRAM. 3D RAM, as its name implies, specializes in processing 3-D screen-drawing operations onboard, without the delays involved in sending data to a separate processor on the computer's graphics adapter. 3-D chips also offer onboard cache.

The Bottom Line

Tech heads can, and often do, debate the performance/value tradeoffs of various memory configurations long after the rest of us have to make a decision and plunk down our dollars. So, what to buy? Most gamers will probably find the best bang for the buck with the following configuration in a Pentium system: 16MB of EDO RAM, a 512KB pipeline-burst processor cache, and a graphics adapter that uses WRAM.

Processor cache memory

Processor caches are simply blocks of high-speed RAM that sit between your computer's microprocessor and the system's standard RAM storage. When the processor needs to refer to RAM for data or executables, it checks the cache first. If the data or executable is in the cache, the processor can get about its business much more quickly than if it has to go to standard RAM.

Primary caches are caches that reside right on the microprocessor. They're the fastest type of cache, since they're right there for the processor to access without having to travel through buses. Unfortunately, cache memory takes up precious space on the microprocessor, so most processors only include about 8KB of onboard cache.

Most PCs also include a secondary—or Level 2—memory cache that is located on separate chips. Secondary cache comes in different sizes, and, in principle at least, the more cache you have, the better. The larger your system's cache, the more likely it is that whatever data or instructions the processor needs will be found there. But since fast static RAM is expensive, few systems are configured with more than 512KB, and most Pentiums come with 256KB.

There's still more that distinguishes caches. Caches can be either "write-through" or "write-back." With the older write-through design, the processor stores data in both the cache and the standard RAM at the same time. This strategy isn't particularly fast, but it ensures that the contents of the cache and the RAM are synchronized. With write-back cache, the processor first writes to the cache and the cache controller, then conveys the data to standard memory when the processor isn't so busy.

That makes write-back cache faster. But write-back cache is more complex, since the cache controller must constantly check memory to ensure the cache and standard RAM are synchronized. As a result, write-back caches are more expensive to implement.

Finally, "pipeline-burst" cache, also called synchronous cache, refers to the type of static RAM that is used in the highest-performance systems.

That's it—everything you need to know about RAM. Think your memory can hold it all? ■

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Web Server 101

I really enjoyed reading the article "D.I.Y. on the WWW" in the November issue (page 152). In fact, I used your help to create my own Web page. Now how do I put it on the Internet?

Antony Seeff
antony.seeff@pixie.co.za

All setup with no place to go, eh?

If you want to make your Web page available to others on the Internet, you've got to set up a Web server. That involves four basic operations: installing TCP/IP, installing server software, obtaining an IP address from an Internet service provider, and connecting to the service provider via an appropriate protocol.

TCP/IP (or Transmission Control Protocol/Internet Protocol) is a set of network protocols required for communications over the Internet. If you're running Windows for Workgroups, Windows 95, or Windows NT, you can install TCP/IP through the Network utility in the Control Panel.

Next, you'll want to install server software, which will handle communications between your system and the Internet, as well as provide security, monitoring, and maintenance tools. The good news is that there are a wide variety of affordable and easy-to-use Web server packages to choose from. The bad news is that you'll have to have either a UNIX or NT server to run most of them. One server program Win 95 users can try is WebSite, from O'Reilly and Associates.

Finally, you need to set up a PPP (Point-to-Point Protocol) or SLIP (Serial Line Internet Protocol) account with an Internet service provider and obtain an IP address, which is a set of numbers that uniquely identifies your server to others on the Internet.

If you want a full-time, high-speed connection to the Internet for your Web page, you'll want to consider installing a dedicated telephone line and establishing your own Internet node. Be warned: this is an expensive and complicated undertaking.

In fact, I've made the whole process sound deceptively simple by sticking to the basics. As any webmaster can tell you, the practical reality of setting up and maintaining a Web server is a good deal more challenging than that of designing a Web page.

Alternatively, you may be able to pay your Internet provider to mount your page on its server. Check with the ISPs in your area to see which ones will host your Web page and how much it will cost.

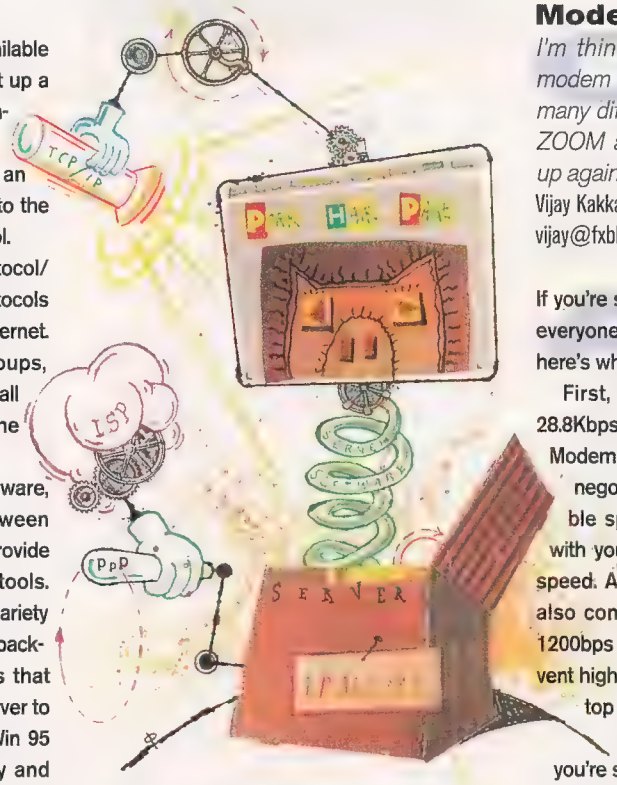

ILLUSTRATION BY DAVID POVILAITIS

Easy Uninstall

I bought a Pentium-based computer with a package of bundled software pre-installed and a coupon for Windows 95 when it became available. Now I've installed Win 95 and I'm trying to free up disk space for my favorite games by taking some of the more useless software off the system. Has anyone come up with an uninstall program that works with Win 95?

John Halstead
Chicago, IL

You're in luck. Quarterdeck has just released a Windows 95 version of its CleanSweep uninstaller program called, not surprisingly, CleanSweep 95. The package should cost you about $30 in the stores. You can reach Quarterdeck at 800-683-6696.

By the way, keep in mind that you can easily uninstall native Windows 95 programs by going to the Add/Remove Applications utility in the Control Panel.

Modem for the Money

I'm thinking of replacing my 14.4Kbps modem with a speedier 28.8 model. I see many different inexpensive brands, such as ZOOM and Cardinal. How do they match up against Hayes and U.S. Robotics?

Vijay Kakkad
vijay@fxbbs.com

If you're shopping for a 28.8Kbps modem—and everyone who doesn't have one needs one—here's what to look for:

First, make sure the modem is not only 28.8Kbps, but that it supports the V.34 protocol. Modems that don't are limited in their ability to negotiate connections at the highest possible speed. When you make a connection with your modem, it isn't always at the rated speed. A 14.4Kbps modem can, for example, also connect at 9600bps, 2400bps, or even 1200bps if the conditions on the phone line prevent higher-speed links. Unfortunately, once the top speed for a connection is negotiated with non-V.34 modems, that's the rate you're stuck at, even if line conditions improve during the call. V.34 modems, on the other hand, dynamically monitor line conditions and adjust themselves automatically, so they'll have you running at top speed more often than modems that don't support V.34.

Also, there's no getting around the fact that some modems are simply made better than others, using higher-quality parts and better-designed firmware. In more than one case, I've found that premium models achieve and maintain higher-speed connections more frequently than less-expensive modems. Also, some of the extra dollars you spend on a premium-priced modem go toward better tech support.

Finally, don't overlook the importance of

continued on page 98

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PC Entertainment Advertiser Index

ADVERTISER	PAGE	ADVERTISER	PAGE
Acclaim (Iron Man)	C2-1	Mad Mouse Software	13
Acclaim (D)	9	Megamedia Corp.	53
Activision (Hyper Blade)	25	Microforum (Soul Trap)	47
Activision (Spycraft)	19	Microforum (Huygens)	91
American Softworks (Bass)	15	Microsoft (Spike)	17
American Softworks (Storm)	77	Microsoft (Sidewinder)	104-C3
CH Products	89	Microsoft (BRC)	between 16-17
Columbia House	19	Mindscape	71
Creative Labs	C4	Mission Control (Diva)	102
Crown	101	Mission Control (IQ)	103
Davidson	27	New World Computing (Heroes)	7
Falcon Northwest	100	New World Computing (Chaos)	59
FormGen (Duke Nukem)	21	Philips Interactive (Dame)	23
FormGen (Space Dude)	51	Philips (Gearheads)	67
FormGen (Xeno Phage)	41	Philips (Dame)	23
FormGen (Head 2)	57	Playmates	62-63
GameTek (Road Warriors)	27	R & G	101
GameTek (Micro Machines)	79	RandomSoft, Inc.	2-3
GT Interactive	69	Sierra On-Line	75
IFTW Books (The Dig)	99	Software of the Month	101
IFTW Books (Afterlife)	85	Stereo Graphics	49
Interactive Magic	65	Strategic Sims	20
Looking Glass	61	Ubi Soft	2-3
Lucas Arts (Indy Desktop)	12	Xatrix Entertainment	55
Lucas Arts (The Dig)	83		

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picking a company that provides up-to-date modem configuration files. With a little-known modem brand, you may have problems connecting to an online service if the service doesn't have a configuration file for your particular model in its setup program.

Carefully consider which features—including software and support—you need from your new modem. Ignore modems that don't measure up, and then select the least-expensive modem from the remaining possibilities.

Don't Blame the Music

I recently bought a Panasonic double-speed internal CD-ROM drive. Initially I had no problems, but a couple of weeks later, when I attempted to launch Microsoft Encarta, I received the message, "Encarta can not find the files needed to start. Either the CD is not inserted or the path to the files is incorrect." Also, when in DOS 6.0, every time I tried to enter the drive letter of my CD-ROM drive I received the message "Invalid drive specification." I am unclear if using music CDs may have led to my problems. What can I do to repair my CD-ROM drive?

Benson Hill
Los Angeles, CA

Music may soothe the savage beast, but I haven't yet seen it bollix a CD-ROM drive.

The most likely cause of your problem is that the software driver for your CD-ROM is not loading. When you boot your computer, you'll see a series of messages scroll across the screen as the operating system loads drivers and executes commands specified in your CONFIG.SYS and AUTOEXEC.BAT files. Among the messages you will see some telling you whether the CD-ROM driver was loaded successfully or not. Chances are, either the commands in these files have been changed or the drivers they refer to have been deleted, moved, or corrupted. The easiest way to get things back the way they used to be is to reinstall the CD-ROM software that came with your CD drive. ■

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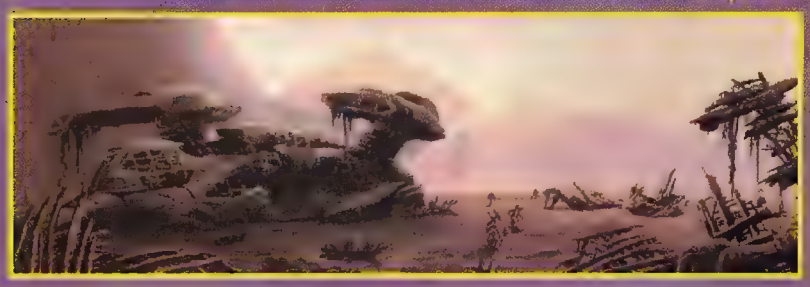

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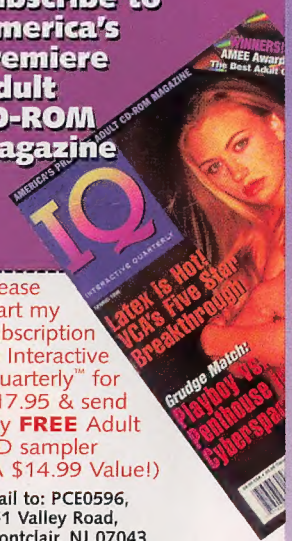

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